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SOUTHERN
TEXTILE BULLETIN

VOL. 29 CHARLOTTE, N. C., THURSDAY, JANUARY 28, 1926 NUMBER 22

You Can Weave Rayon
On Northrop Looms
Bought for Cotton Goods
By Making a Few Changes
Let's Talk It Over

DRAPER CORPORATION

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Doffer Fillets
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The Best Materials Obtainable Make Up Our Products

Give us a trial on Cylinder and Doffer Fillets. This will satisfy you as to the merits of our Card Clothing.

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GERMANTOWN, PHILADELPHIA, PA.

Sold in the South by

Charlotte Supply Co., Charlotte, N. C.

Whitin Machine Works

Whitinsville, Mass.
January 28, 1926

Dear Mr. Mill Man:

Allow us to call to your attention the last and newest member of our Sales and Expert Force, Mr. Dyson Barker. Mr. Barker, our expert on our Model "E" Nasmith type Comber, received his training in England. However, before coming to us "Dysie" had made many trips to this country in order to supervise the installations of English-made Nasmith Combers. Consequently, he knows our Model "E" Comber and also is at home in this part of the world.

At the present moment Mr. Barker is in Italy supervising the erection of an installation of our Combers in the Bergamasca Mill. He writes home as follows:–

"P. S. I have not had the slightest trouble with the erection of these machines, and the way they go together is a credit to the different foremen."

Through the quality of our workmanship we try to build all of our machinery to give the above service to our customers.

Yours sincerely,

WHITIN MACHINE WORKS

Mr. Dyson Barker

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SPECIALIZED TEXTILE CHEMICALS

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TWENTY-FIVE years ago this organization was established, with a humble beginning, with a definite vision of Service to the Textile Industry. The years that have passed have seen many changes in the methods and customs of the industry; in which time Jacques Wolf & Co. has aimed to do more than just keep pace with the procession.

The splendid growth of our company, the increased prosperity we have enjoyed as our business has expanded, the esteemed confidence of our many friends in the industry, are at this time being rededicated as our heritage for the future. Our aspiration is to continue to serve our customers intelligently, efficiently, and to be always ready for the next step ahead as the Textile Industry continues its steady progress toward new goals of achievement.

President

JACQUES WOLF & CO.
MANUFACTURING CHEMISTS AND IMPORTERS
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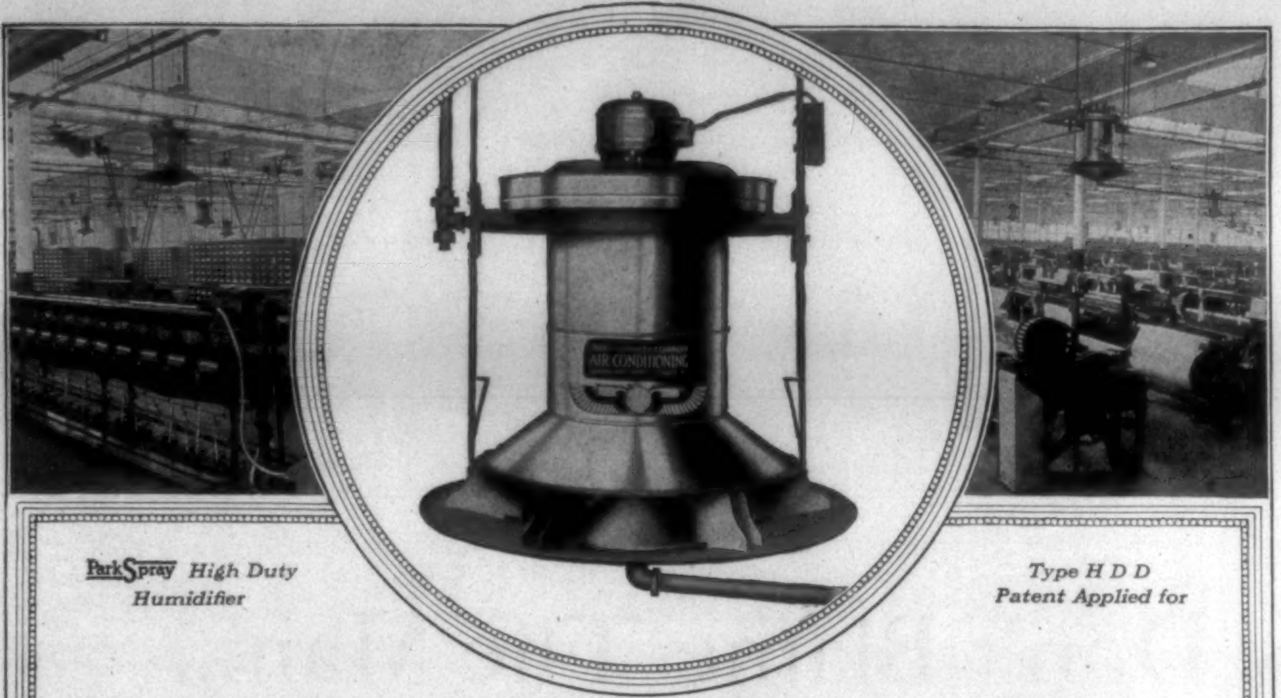

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Type H D D Patent Applied for

Another Member of the ParkSpray "High Duty" Family

This is a High Duty air conditioning unit of greater capacity—a unit that we worked on in the laboratory for several years before presenting to the textile trade.

Without advance advertising 1502 of these units are at work in 48 different plants.

Most of these were sold not on a basis of "how many units" or the price per each, but "what results," because of confidence in our engineers and in their combined experience.

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Mt. Vernon Woodberry Mills	J. E. Sirrine
Nashua Mfg. Company	Parks-Cramer
Republic Cotton Mills	J. E. Sirrine
Aragon Mills	L. W. Robert
Cherokee Spin. Co.	Lockwood, Greene
John Farnum Mfg. Co.	Parks-Cramer
Social Circle Cotton Mill Co.	L. W. Robert
Avondale Mills	J. E. Sirrine
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Where high temperatures are created by textile operations (such as spinning) these large capacity heads provide the desired amount of water vapor to secure desired regain and to neutralize the heat—without adding to the number of units to be cared for.

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Blame The Method!

If your roving waste amounts to around 10,000 pounds annually, don't blame your men. It's the method of cleaning.

If your annual cost of roving bobbins surprises you, it is not due to the spinners or bobbins. It's the method of cleaning.

The Termaco makes it practical to fix responsibility for roving waste and cut down the amount. It prolongs the life of bobbins by carding off the waste, not cutting it off. It saves a further and very substantial amount of money by not cutting the staple.

An investigation by the A. C. Nielson Company, an engineering organization of Chicago, showed a Termaco will save its own cost four times a year by the saving it effects.

A copy of the Nielson investigation will be sent upon request. It contains information we believe you will find of special value.

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Engineering Department
The TERRELL MACHINE COMPANY, Inc.
Charlotte, North Carolina

The TERMACO

ROVING BOBBIN CLEANER

SOUTHERN
TEXTILE BULLETIN

PUBLISHED EVERY THURSDAY BY CLARK PUBLISHING COMPANY, 18 WEST FOURTH STREET, CHARLOTTE, N. C. SUBSCRIPTION $2.00 PER YEAR IN ADVANCE. ENTERED AS SECOND CLASS MAIL MATTER MARCH 2, 1911. AT POSTOFFICE, CHARLOTTE, N. C., UNDER ACT OF CONGRESS, MARCH 3, 1879.

VOL. 29 CHARLOTTE, N. C., THURSDAY, JANUARY 28, 1926 NUMBER 22

Analysis of Dry Goods Situation

Address By H. W. Davie of Hunter Manufacturing & Commission Company, Before National Wholesale Dry Goods Association.

AT the present time this country enjoys the highest real wages in all history—roughly. 50 per cent over 1920. The elimination of waste has been an important factor in this. The consumer's desires for better finer things are being concerted into over-the-counter sales. Not the least important factor has been more efficient distribution.

The economic welfare and happiness of the public is the first consideration of business. From that standpoint the present situation is indeed a favorable one. Industries which have contributed to the present happy economic situation have devised more efficient ways of doing business.

The question facing us is, has the dry goods industry kept the pace set by the natural forces of human and industrial development?

Let us consider a few typical developments in other industries:

I. The Automobile Industry is the first shining example of progress in modern business. What is the underlying reason for the advancement of that industry? To answer in a few words, one would say, a thorough, up-o-the-minute understanding of the desires of the consumer and the adoption of positive measures designed to meet these requirements. For instance:

(2) The public desired closed cars at more reasonable prices. The automobile industry supplied them, with increased profit to itself.

(3) The public waned to buy cars "on time." Some mortgaged homes to make the full cash payments requireed. The motor industry then supplied installment service—otherwise the point of saturation would have been reached years ago.

(4) The public desires still smarter cars, even in the lower-priced makes. Present facts prove how a prompt meeting of this possibility subsconscious desire yields large returns. I understand from what I believe to be dependable information that one of the largest producers, who has made no style change for years, until recently a slight change was made, had experienced a slight decrease in sales to the public during the first eight months of 1925. Contrasted to that is another very large producer, which met the demand for smartness, in even its lowest priced cars, and indeed, was quite instrumental in the development of that desire—has had an increase in sales to the public in the same period of 13 per cent.

II. The Petroleum Industry, considered for many years to be an octopus heedless of the wants, desires or needs of the public or the trade, is today and has been for some time devoting the best thought in the industry to the human needs and the economic needs of the consumer, the dealer and the distributor.

(1) First, the petroleum industry has striven to make its products better and better, and suitable to the changing standards of public needs.

(2) It has devoted constant analytical study to the need, not only of quality in product, but to the need of courteous, efficient service.

(3) A striking example in the oil business of building success through meeting the desires and needs of the American Petroleum Transport Co. Several years ago that company determined to sell its own refined produts which formerly had been sold in bulk to other countries. The Pan-American people went into territories seemingly heavily covered by large and eminently profitable competitors. After a very careful analysis of the conscious and unconscious desires and needs of both retail and consumer customers, that company started with no business, and in one year had as much as 25 per cent of the total business in some territories. In certain territories they started with no dealers and in short order had a large percentage of the independent dealers located there. They sold their product and have developed a wonderfully successful business on the basis of ideas and service and not by cutting prices.

III. The Men's Clothing Industry. For years the product of this industry represented poor material and poor workmanship. Then a few far-sighted men studied the consumer and his wants and developed sound businesses on the basis of careful, analytical thought and a thorough comprehension of the needs of the consumer and the economic problems of the retailer.

Many of the old tailors could have established successful businesses for themselves in honest ready to wear, had they not taken a passive and even a scornful attitude toward this new industry which was destined to become of paramount importance in their field.

The Basis for Progress.

What lessons can we learn from these and similar cases?

(1) These industries have studied the underlying economic facts affecting the markets they sought to serve;

(2) they have anticipated the needs or desires of their public—they have helped form the consumer's consciousness of desire;

(3) they have constantly striven to make more highly salable products; and

(4) they have studied methods of bringing all the factors in their distribution into a smoothly working unit rather than permit them to operate individually and sometimes antagonistically to each other.

All Have Same Problems.

IV. The dry goods industry. The time has come when we in the dry goods business must face the fact that from producer to retailer we are parts of the same body and that the problem of one is the problem of the others—producer, wholesaler and retailer alike.

To meet our common problems we need the greatest possible amount of light and the least possible amount of heat. We have talked a lot about these problems but accomplished little to date. Mark Twain might have been referring to us when he said: "Everyone talks about the weather, but no one does anything about it."

A survey of the dry goods industry discloses certain weaknesses in each one of the three factors in the distribution of dry goods merchandise; in the producer, in the wholesaler, and in the retailer—faults which need correction or improvement.

The Producer's Failing.

Begin at the beginning—consider the producer. Broadly speaking, the following criticisms seem to be fair:

(1) We have not given adequate study to the problems, needs and desires of the consumer, the retailer and the wholesaler.

(2) We have been slow in our styling of existing lines and in developing new lines in keeping with the trend of the consumer's needs and preferences.

(3) The market has not been measured in terms of reasonable estimates of possible volume—to avoid over-production and insure economic distribution. Sales have not been directed or stabilized as definitely as in other industries.

The Retailer.

(1) In the scramble to feature low prices, the retailer has forgotten that the public wants service and honest merchandise and will pay for it.

(2) He has neither analyzed turnover in detail nor definitely organized himself to attain it on a sound basis;

(3) Usually he has devoted at least two-thirds of his time and thought to lower buying and not more than one-third to better selling. It should be the other way round.

The Wholesaler.

(1) He has not studied the consumer trend or the retailer's problems; he has not organized to help the retailer meet competitive conditions;

(2) He has not distinguished between large and small stores and has not provided the particular kind of service required by each; he has not realized that both types of service could be maintained on a basis economically sound for both the retailer and the wholesaler;

(3) He has not studied his territorial market or even analyzed properly his own sales; thus he has not organized to give the service indicated by an intelligent check-up on his position in his field.

Let me quote from a letter which is fairly typical of letters received during the past year, which bears on the efforts my house has been making to organize and to perfect its service, and maintain a constant understanding of the needs and interests of the consumer, the retailer and the wholesaler.

"Until the retailer realizes that he must support the wholesaler, our business probably will remain poor." It undoubtedly will—so long as that attitude exists.

Should we expect the retailer to

(Continued on Page 35)

The Cardless Jacquard Flat Knitting Machine

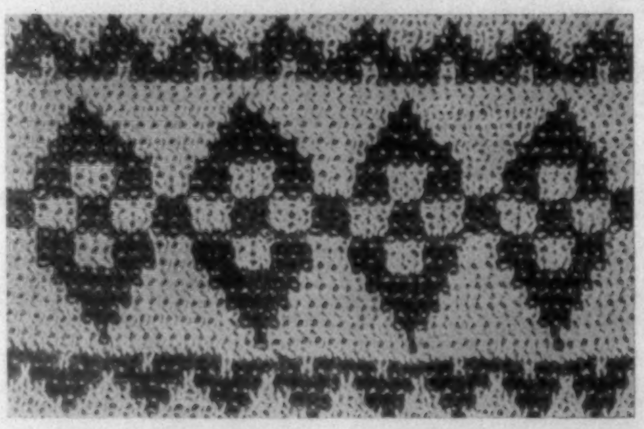
A SERIOUS item in the cost of producing designs in color on flat-kintting machines is the expense of the jacquard cards. The only variations possible with one set of cards are those obtainable by the use of different colors; each new pattern necessitates a new set of cards. For this reason the introduction of a jacquard flat machine capable of making a wide range of designs without additional expense should attract the notice of all outerwear and fancy hosiery manufacturers.

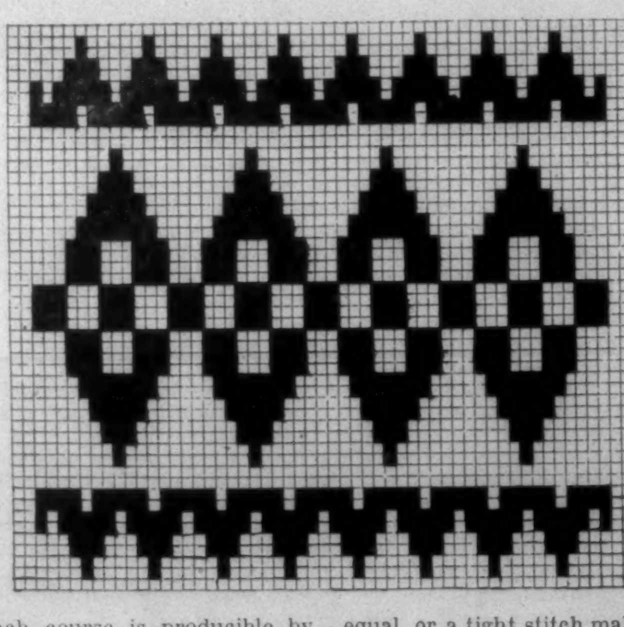
In place of the jacquard cards a drum is used built up of detachable metal strips cut to the gauge of the machine. Machine, as yet, are only adapted to take two colors in the one course, and designs are restricted to those of a geometrical nature. The feature of the machine does not lie so much in the absence of cards—which is not entirely novel—but in the ingenious method of controlling the drum.

The Selecting Mechanism.

In the tricks of the black bed, below the needles, are hinged selectors with which the drum comes into direct contact. The drum is moved forward to make the selection as the cam carriage completes each traverse. The selection made depends upon the cut of the metal strips, and these are arranged in pairs, one strip being complementary to the other. During the knitting action the drum is held clear of the selectors, and at every other course, each time the cam carriage moves towards the right, it is alternately raised and lowered to present first one strip and then its complement to the selectors. Unless the drum is turned on its axis only one pair of strips is used, the individual strips coming into action in turn. Usually two courses are knitted with one selection, followed by two courses with the "filling-in" selection. Hence, by knitting two courses with each color and changing yarn guides on the right vertical strips are produced. In this case all movements are entirely automatic except the yarn guide change, even on hand-controlled machines. For effects other than strips it is necessary to turn the drum periodically to bring other strips into action. This is effected through helical gearing from a handle on the left of the machine. This handle works round a notched wheel, divided and numbered like a clock face. For each position of the handle there is a corresponding pair of strips round th drum. Of the 12 pairs no two are exactly alike, though they may make similar needle selections. The drum is designed to ensure simplicity in operation; there is no attempt to give as many combinations as possible, but rather to render the few of the utmost use. As a rule at least four knitting courses are made—two full courses in all—between changes on the clock face, two with one color and two with another. Knitting is commenced with all yarn guides on the right, and these are changed after every two courses. On the fourth, or on the last of a multiple of four courses, when the cam carriage is traveling towards the right, the handle is turned to make a fresh selection. If desired a fresh selection may be made after every two courses; that is, after one course. The design is then commenced when the carriage is on the left and the yarn guides are on opposite sides. The guides are still changed on the right and two courses are knitted in succession with each color, but each time knitting takes place from right to left a fresh selection is made. The drum may also be moved sideways over six needles, so that when using selections such as 11 by 1, 9 by 3, etc., which total 12, the pattern may be centered at intervals as desired.

The needles of the front bed knit continuously, and there are two courses made on the front bed for every full pattern course.





Whilst some of the simplest effects may be produced from memory when the operator has become acquainted with the arrangement of the drum, the more elaborate patterns must first be plotted on squared paper, care being taken to see that each course is producible by means of available selections. For, whilst it is possible to increase the designing scope by changing the metal strips, the designer should first exhaust the possibilities of the machine with the drum unaltered.

From the paper pattern the position of the "clock-hand" should be registered for each different selection. Paper discs are provided on which the position of the handle and the color to be knitted at each course may be written down. The pattern being recorded on the paper disc in this manner, the latter is then fitted by spring clips to a metal disc placed at the back of the machine. The edge of the metal disc is cut into ratchet teeth, and each time the carriage travels from right to left a pawl racks the disc one tooth, corresponding to one division of the paper disc. An indicator shows the position of the drum and the color to be used at every stage of the pattern.

On the squared paper the vertical divisions represent wales, the horizontal divisions courses.

It will be noticed by comparing the squared paper pattern with the fabric photograph shown herewith that the pattern actually produced is not an exact reproduction of the design as seen on paper. This could not be, unless an abnormal stitch length were employed—a very loose stitch making courses and wales per inch equal, or a tight stitch making twice as many courses as wales per inch. In cases where a definite figure is required the relation between courses and wales must first be found and allowance made in plotting out the pattern. The paper pattern will not then be representative of the desired effect, but will give that effect, as nearly as is possible, in the fabric.

The change from jacquard to plain work, or vice versa, may easily be made, and by setting a stop the possibility of making a selection when not required and thereby jamming the machine is avoided. Costumes, cardigans, and similar garments may be made having fancy borders, fancy cuffs, etc., with plain full-fashioned body, or the pattern may cover the whole garment. It is usual in the latter case for the several parts to be knitted straight and afterwards cut to shape. However, as a result of the introduction of jacquard needle selecting circular machines, the users of flat machines may ultimately consider the production of garments of which the parts, though in a fancy design, are yet fashioned to shape by loop transference. This involves extra work, but may be effected on the cardless jacquard machine by turning the hinged part of the selectors under as the needles are taken out of action. As by suitable adjustment the drum may be brought forward to select earlier, the traverse of the cam carriage can be shortened, within limits, in accordance with the knitting width.—Textile Recorder.

Single Yarn Contraction

The Lowell Textile School has recently issued a Bulletin on the "Study of Relation of Twist to Contraction in a Single Cotton Yarn."

The object of the investigation was to determine the relation that the twist in a single yarn bears to the contraction that takes place during spinning.

Single 13s yarn made from 1 inch strict middling cotton with twist multipliers from 2.75 to 6.75 was spun on a frame having 36 tape driven spindles running about 7500 R. P. M.

Two methods of measuring delivery of yarn were used, one figured from the gearing, the other by actually having a 40s/2 parn feeding through the rolls and then measuring the length of the yarn delivered. In actual operation the spindles produced yarn, while the same roll delivered a 40s/2 for comparison with the yarn wound on the bobbin.

The following table summarizes the results obtained:

Tabulation of Contraction.

Twist Multiplier	First Test	Gross Test	Average
6.74	13.64%	11.76%	12.70%
5.98	10.10%	9.73%	9.90%
5.10	7.57%	7.70%	7.68%
4.48	5.40%	6.07%	5.74%
399	3.65%	3.08%	3.36%
3.50	2.89%	3.12%	3.00%
2.50	1.53%	1.36%	1.49%

Attention is called to the fact that this is one of a series of similar studes on yarn manufacturing that have been conducted by the School and that the results are not being looked upon as being final. Criticisms of the results will be appreciated.

A complete copy of this Bulletin with a chart of the results can be obtained by applying directly to the School.

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Whatever type of motor you select from the complete Allis-Chalmers line, you get the noted Allis-Chalmers electric steel frame and spider; the distortionless core design; the costly silver-brazing of rotor bars; the special dipping and baking of the coils; the perfected cooling, and other Allis-Chalmers developments.

In every point of motor design, including bearings, Allis-Chalmers is looked to for highest accomplishments. Write or ask about latest Allis-Chalmers economies.

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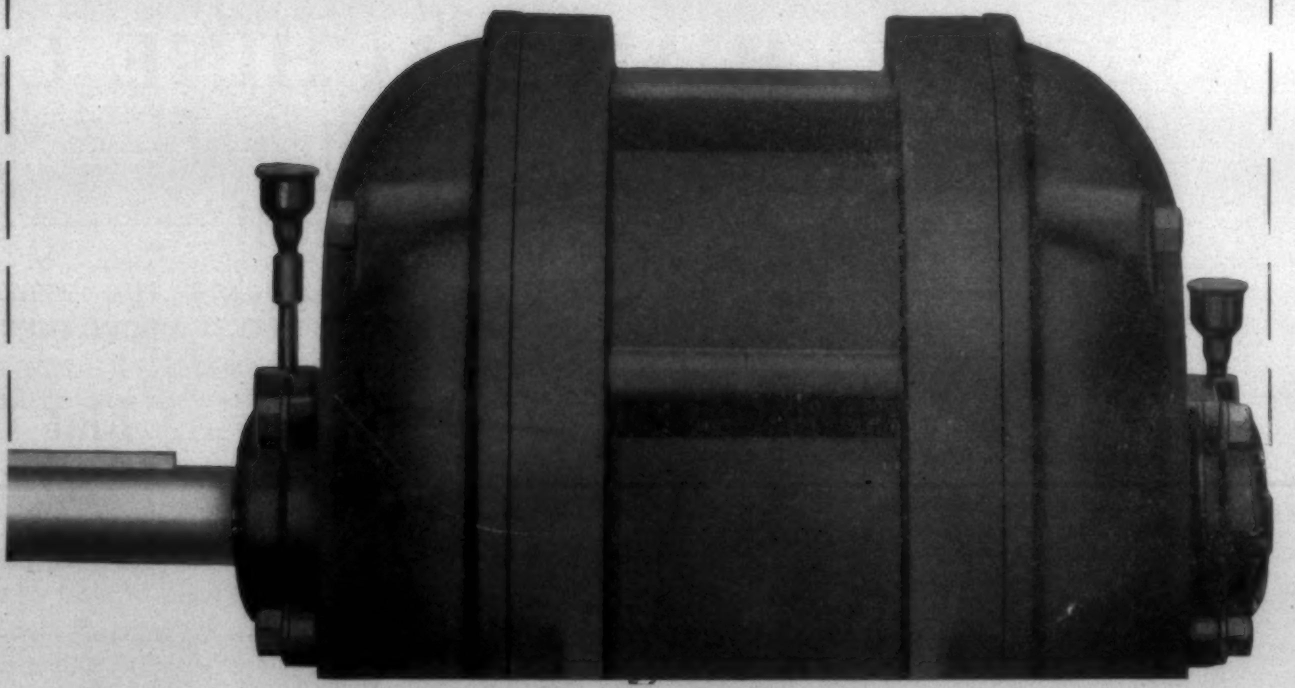

ALLIS-CHALMERS

Sulfur Dyes on Mecerized Thread

SULFUR dyes play an important part in the coloring of all classes of cotton material from raw stock to finished cloth, but no class of manufactured cotton has received more attention from dyers than yarns. Among the most important classes of cotton yarns dyed with sulfur colors are sewing and embroidery threads, for most purposes of which the sulfur dyes prove to eminently satisfactory.

Cotton yarn dyeing offers no difficulties, but to secure the best results, it is necessary that the yarn be boiled out before dyeing to ensure that the color goes on evenly, and that the penetration of the threads is complete. As a general rule, cotton yarns are given a preliminary soda boil which removes natural fats and waxes and whatever dirt the yarn may have accumulated during the manufacturing processes. Following the soda boil, the cotton is given a thorough wash with water to remove the soda, but since the sulfur dyebath is alkaline, this washing is frequently omitted. If very light and clear shades are to be dyed, the yarns may be bleached, but this is not generally resorted to except in special instances, the reason being that the sulfur dyes do not yield very bright shades.

The actual dyeing of cotton yarns is carried out in the usual form of open dye kettles, or in the more modern types of mechanically operated dye kettles, in which the cotton is kept in cinstant motion in a fixed volume of dye-bath. Since all sulfur dyes must be applied from a bath containing sodium sulfide, it is necessary that the kettle be constructed of wood or iron, and without submerged pipes or fittings made if brass or copper. These facts are well known to all users of sulfur dyes.

In dyeing with the sulfur dyes, it is always advantageous to employ as short a dye-bath as possible, say 240 gallons for each 100 pounds of cotton yarn. This proportion allows ample space in the bath for the yarn to be moved about freely, and permits good circulation of the bath through and around the skeins.

For dyeing most light shades, including grays, the requisite amount of dyestuffs for the desired shade is dissolved in water containing 1½ times the amount of sodium sulfide concentrated as of dyestuff and when solution is effected, it is added to the dye-bath. (An exception to the foregoing is in the case of sulfur greens, which are dissolved with an equal amount of sodium, sulfide concentrated.) The dye-bath is then charged with 2½ per cent soda ash and 2 per cent Turkey Red oil, calculated on the weight of the yarn to be dyed. The bath is heated ti 120° F., the yarn entered, given two or three turns, and the temperature raised to 180° F., and dyeing continued at this temperature for about ¾ of an hour with slow but steady truning. Towards the conclusion of this time, samples are taken for matching, and when the match is struck, the yarn is lifted, allowed to drain, and washed. Sometimes more than ¾ of an hour is required for certain matches, which is taken care of by keeping the yarn completely immersed in the cooling bath.

For dark shades, usually from ¾ to an equal amount of sodium sulfide is required in dissilving the dyestuff. The quantity may vary, according to the practice of each individual dyer, but the above is a fair general average. When the dye is dissolved it is added to the dyebath, together with 5 per cent soda ash and 2 per cent Turkey Red oil, both calculated on the weight of the cotton. Heat to 120° F., and enter the yarn giving two or three turns to assure saturation, and heat the bath to about 195° F. in 20 minutes, adding 15 o 30 per cent common salt. Dye for ¾ of an hour at a temperature as close to 195° F. as possible; then wash and dry. It is to be noted that common salt is used in the dyebath for light or medium shades; it is only employed for the heavier shades.

Most sulfur dyes are benefited after dyeing and washing by being allowed to hang on poles in a place where there is free access of air; this is to effect a sort of oxidation that assures increased fastness of the dyed shade to both washing and rubbing. Of course, if the dyeings are from very strong dye-baths, and have not been well washed, there is always a possibility of crocking, which can only be guarded against by thorough washing.

Of the two classes of cotton yarns commonly dyed, plain and mercerized, it is well known that the latter takes up more dye from the bath than the former, so that if it is desired to work most economically, it is necessary to employ the standing bath, and make due allowance for the difference in exhaustion. For light and medium shades, standing baths are not as important as baths used for full, heavy shades of blacks, browns, blues, greens, etc.

In dyeing sewing or other hard twisted threads, it is desirable to effect as thorough penetration as possible, which is in a great measure accomplished by the aid of the Turkey Red oil used. This substance materially aids in causing the dye solution to penetrate to the centre of the thread. In this connection, however, the time element must not be overlooked, since the longer the immersion in the bath the greater

(Continued on Page 38)

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Pawtucket, R. I.
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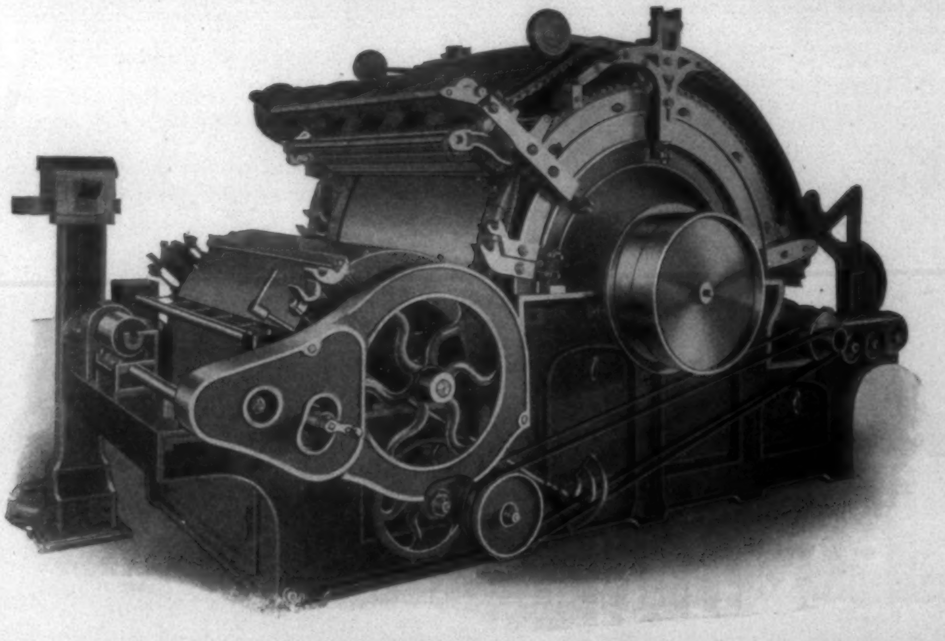

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PRODUCTS

Warns Against Overproduction

A STRONG warning against overproduction by textile mills was recently issued by W. M. McLaurine, secretary of the Cotton Manufacturers Association of Georgia. In a bulletin to the members of that organization, Mr. McLaurine states that spindles and production are growing faster than population and demand. "The goods markets is the center of the textile world today. Stocking goods is as dangerous as a boy playing with dynamite," the bulletin says:

The bulletin states that textile mills must eliminate night work and must prepare for a shorter and more intensive day. A shorter working day is coming, because economic necessity demands it, it says:

"Day and night runs may enable us to produce goods at a minimum cost, but what value will that have when we cannot sell them at a profit," Mr. McLaurine asks.

The bulletin in full is as follows:

"With the world spindleage now standing at approximately 160,000,000 with an enormous number of new spindles being placed, with export markets being closed to us by the development of the textile industry in these fields, with new competition becoming sharper and keener, with a development of textile manufacturing growing in many fields already, and new textile manufacturing starting up in many countries, with a rapid and unchecked expansion in our own section, I dare ask the question—'Whither are we drifting'?

"We can change our delightful seller's market into a buyer's market, and do it with but little effort. We are sitting on the glorious side of success, but we are near the line across which is gloom and anxiety. We do not have to cross this line, nor do we have to stay close to it. It all rests with the whole—not only in Georgia, but in the South. The machinery men are putting high pressure methods on the development of textile manufacturing in many of our choicest foreign fields.

"The culture of cotton is being studied nearly everywhere. Only last year I was informed that a Russian syndicate asked for eleven men from the University of Georgia Agricultural College to be sent to Russia to direct the growing of cotton. Germany, France, Italy and others are growing in spindles.

"England needs cheap cotton, and if she ever gets, she will give us more trouble than a tariff can take care of.

"The East is fast developing the coarse goods market. Brazil and Colombia and Peru are developing textile industries beyond our knowledge. Mexico is getting a stable government and an industrial awakening is starting her spindles and looms.

"Spindles and production are growing faster than population and demand.

"The law of supply and demand is as fixed as the laws of nature. What does the world need in textiles? What new uses can be made of our products?

"Day and night runs may enable us to produce goods at a minimum cost, but what value will that have when we can not sell them at a profit?

"The goods market is the center of the textile world today. Stocking goods is as dangerous as boys playing with dynamite.

"The textile mills of America some day must eliminate all night work and must prepare for a shorter and more intensive day,—not because any socialistic reformer or welfare worker demands it, nor because any law will be written on the statute books demanding it, not because of any humantarian desires on the part of any group, but because economic necessity demands it, and when economic necessity speaks—the world obeys.

"The Darwinian theory of the survival of the fittest is drawing so close to us that soon it will cease to be a theory and become a fact. There will be a time when the mills, that are operated upon judgement and reason and sound economics, mills that consider all of their relationships will stand, and those that have disregarded these will fall. We are no longer communities and sections in our influence and activities, we are a part of world movements and problems and relationships.

"I used to work for a school superintendent that intepreted the temperature and comfort of all of the buildings of his system by looking at the thermometer hanging in his own office. It is very illuminating sometimes to look at another thermometer and also take a sweep of general weather conditions.

"I want to say another thing that everyone knows or should know. There are too many looms on coarse goods, and too many yarn mills making the same kinds of yarn.

"The New Year looks good. General conditions look good. An air of speculation is floating a little too prominently in some circles. Speculation is as contagious as any virulent disease. Our industry must be kept free from its ravages. This is my feeble attempt to inoculate it and make it safe.

"Overproduction is dangerous. Stocked goods as a policy, or as a speculative effort, are an unseen germ that will soon become active and produce sickness, if not death.

"Manufacture for orders only, help each other maintain a steady legitimate and profitable market. Study your costs and your relationships with the big relationships. Whatever hurts you, hurts your fellow competitor, and whatever helps you, helps him.

"I have always made it a rule not to talk to people who cannot understand, and not to request of people impossible things.

"I have therefore intended to compliment you by this letter rather than reflect. I know you people are intensely busy, hence I believe I shall not be presumptuous in sounding this word of caution."

The Invisible Exit for Production Cost Leakage

Your profits do not always make their exit from your mill via the accountant's ledger. If you are paying your weavers by the old fashioned yardage method which requires faulty human tally, then another exit exists in your plant, through which many unaccounted for profits or lack of profits make their getaway. And that outlet is the pay envelope.

Install facts—place a Root Pick Counter on every loom. They keep your actual and estimated production costs the same at all times.

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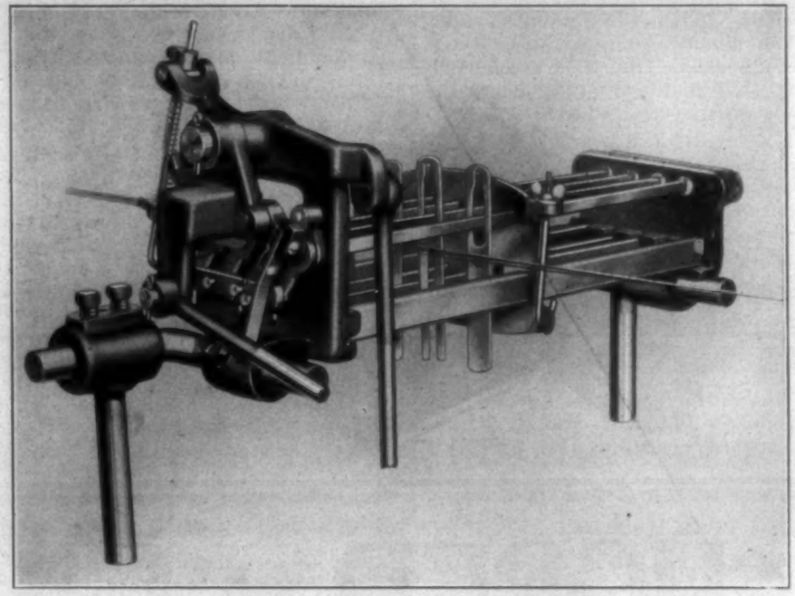

Nearly 15,000 sold during 1925

For:—

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WORCESTER, MASS.

PROVIDENCE, R.I. PHILADELPHIA, PA. PATERSON, N.J.

ALLENTOWN, PA.

S. B. Alexander, Southern Manager, Charlotte, N. C.

Disappointing Year in English Cotton Industry

By Frederick W. Tattersall, Manchester.

TWELVE months ago there were signs of spinners and manufacturers in the Lancashire cotton industry experiencing a period of more remunerative trade. The optimistic feeling which then prevailed has not been justified, and it can be said that the year which has just drawn to a close has been disappointing, though the industry was more active than in 1924. Throughout the year business in both yarn and cloth has been limited. Occasionally, shippers and merchants bought on a very encouraging scale. These buying movements, however, did not prove of long duration. At any rate, the trade done during the past twelve months has not been large enough to enable producers to work full time.

During the year more machinery has been working than in 1924, and therefore, as far as actual employment is concerned, the twelve months just ended has been rather better than the previous period. It is also probable that the spinning and manufacturing concerns have not suffered financial losses to the same extent as in the previous year. The trade has certainly suffered a number of important failures, the largest of which was the Belgrade Mills Co., Ltd., the liabilities in connection with that failure totaling around £3,3.500,000.

Out of the 56,000,000 spindles in England, about 36,000,000 are engaged on the production of yarns from American cotton, and it is this section which has been most severely hit by the trade depression. On no acasion have the factories been able to run full week of 48 hours. For the major portion of the year only 39¼ hours have been worked, and for a few months 35 hours was the schedule. Despite this drastic curtailment of production, spinners of yarns experienced great difficulty in clearing the output, and time and time again stocks in first hands tatoied to very inconvenient dimensions, with the result that sellers got rid of their supplies at ridiculously low prices. In the circumstances much of the business done proved very unremunerative, and it is not surprising that many spinning companies have had to report big losses.

Compared with spinners of American yarns, producers of Egyptian counts, whose mills are mainly situated in Boston, have again had a profitable year. Business, of course, has been very difficult to arrange on account of the wide fluctuation which has taken place in raw-material prices. From the high point, however, a big decline has taken place.

One of the features of the year has undoubtedly been the improved prospects regarding the supply of American cotton. When it is remembered that only two or three months ago world spinners were faced with the possibility of an acute shortage of raw material—even the word "famine" was used—the unfavorable change in the situation is easily understood.

A large yield of cotton has also been grown n Egypt, and it is estimated that the total output will be of record dimensions at 8,000,000 cantars.

Although there has been no change in the wages of the operatives, the workers in both the spinning and weaving branches have suffered considerably owing to underemployment and organized short-time working. It might be mentioned that current wages are 90 per cent higher than in July, 1914.

With regard to the cloth section, there has been a good deal of irregularity in production. Some concerns have been able to work full time practically all the year round. On the other hand, many concerns have been compelled to stop looms. It is estimated that the output of all cotton cloth is about 85 per cent of the full capacity of the machinery. It must be borne in mind, however, that all this cloth is not being sold at a profit. As a matter of fact, makers have accepted orders simply with a view to keeping looms running, and even then small financial losses have resulted; but it has not been as bad as if the machinery was at a standstill.

Regarding the export section, it is disappointing to have record that India, which is the most important market for Lancashire piece goods, has, generally speaking, not provided business of weight. However, trading conditions in Inda are now considered to be healthy, and latest advices indicate that many of the dealers in the bazaars are gradually getting rid of stocks, so that in the near future it is not unreasonable to anticipate that a buying movement of importance will take place.

A chaotic state of affairs has prevailed throughout China. Owing to the continued outbreaks of warfare, business with that country has been smaller than for a long time past.

A very encouraging trade has been done in a wide range of fine and fancy fabrics for the Continent and the United States. For the first six months of the year a fair trade was done for Egypt, but business during the latter part has been very quiet. Central and South America have also provided useful orders, and a steady trade has been done for the Dominions and Colonies. The majority of manufacturers, who make for the home trade, have had very little to grumble at.

(Continued on Page 38)

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MANUFACTURING COMPANY
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for Cotton,
Silk, Rayon,
Worsted,
Wool,
Linen,
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Plain,
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Gingham

The Textile Trade in Cotton has been in the dumps for some thirty months: yet we have increased plant, equipment and types of looms built: what is the answer? Good service; prompt service; fair prices.

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Quality Is Paramount

WITH many of the raw materials going into the chemical-consuming industries, market fluctuations are wide and frequent. In such cases the question of price may readily assume in the mind of the buyer an importance out of all proportion to other vital considerations.

This undue emphasis on price may often extend even to those raw materials where market changes are infrequent and small, and where little may be gained by "shopping" for lower quotations. Thus, when the quality and uniformity of the product and the character of the manufacturer should be the prime considerations, price frequently becomes the principal deciding factor. Long-established brand names and records of service may be entirely disregarded for a negligible difference in price.

By rigidly adhering over many years to a uniformly high standard of manufacture, we have built up for our "Eagle Thistle" Brand products an enviable record for quality and uniformity, at the same time establishing a reputation for satisfactory service and equitable business dealings with the consumer. We believe that discriminating buyers are recognizing more than ever before that these are the first things to be considered in selecting a source of supply.

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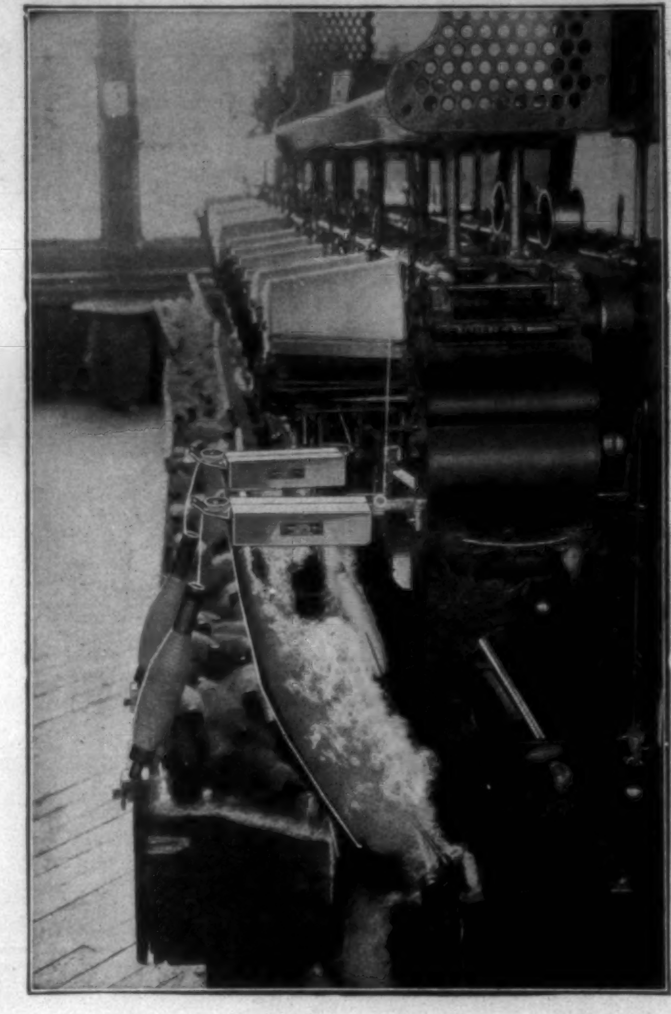

The Truth About Slubs

It does not require inventions to make slubs, but often they are made, and that is another story.

We wish to tell you that the Eclipse Automatic Yarn Cleaner is sure death to slubs. The Eclipse Cleaner not only catches all the slubs but thoroughly removes all the dirt in the yarn.

Many knitting mills and spinning plants realize the extreme value of the Eclipse Cleaner, and are equipping their entire winding capacity with the Eclipse Cleaners. The basic principle of good knittng and weavng is thoroughly clean yarn.

Why make yourself believe you are getting the best results when you can absolutely improve your yarn with the Eclipse Cleaner.

The Eclipse Cleaner is easily attached to your winder. It does not add any additional cost to your winding costs. Upon request we will cheerfully give you a demonstration.

Eclipse Textile Devices, Inc.
Elmira, N. Y.
Makers of
Automatic Yarn Cleaner, Automatic Stop Motion, Yarn Tension Device
Eclipse Van Ness Dyeing Machine

Practical Discussions
By
Practical Men

Filling Slubs off the Bobbins.

Editor:

I am having much trouble with my filling frames, because the yarn slubs off while weaving. Can some good spinners offer any suggestions which will help me to overcome this trouble. Mr. Filling.

Life of Card Clothing.

Editor:

Regarding the life of card clothing, there seems to be considerable variation of opinions as to the working life of this important part of our cotton carding machinery. Can some of your readers advise me as to how long carding clothing generally lasts in the service of manufacturing.

Future.

Answer to G. B.

Editor:

The life of twine harness depends entirely upon the ability of the overseer in charge. That is if the overseer is a live wire, he will not allow his warp man or loomfixer to leave a loom until the harness is pulling evenly. On the other hand an overseer that is satisfied with just being an overseer will usually pass up most everything. The writer has had long experience with twine harness as outlined by G. B. At one mill the average life of the harness was 18 months, at another the average life was three years on the same kind of loom and goods. Buster.

Answer to Georgia.

Editor:

In answer to Georgia, regarding the life of picker sticks, will say that I have studed picker sticks and have watched for the causes that make them wear out until I believe I know how to get the longest service out of them.

My experience has been on Draper looms. The first thing to do is to see that your orders are carried out. The results are sure to show up. Try this for just two weeks. See that there are no picker sticks obtainable except through yourself (the overseer) and have the fixer bring the discarded sticks before you issue new ones. You (with the fixer) investigate the broken, burst or split places or marks of any kind that show upon the sticks that have been taken out and you will find the different causes that I will mention.

These causes are: Leather out of leigh end, bumpers worn out and stick hitting quill guide; loose picker, letting screw work up and down, stick bursting; worst of all, picker screw driven in from the side of stick causing it to burst. Put screw in on the back or edgewise with the stick; watch for two much stroke on the stick; picking late, which throws the shuttle so hard that it is straining on the stick; parallel shoe on foot being tightened up either too far or to one side or the other, wearing the stick out on the side that drags against the leigh and stick striking against quill.

There are many other such causes which you will find if you try this system. Then make a rule not to allow any of these troubles. By putting on an extra man and looking at every loom for every cause of wear that I have mentioned, you will find that your sticks will run 100 per cent longer. Experience.

Answer to Mass.

Editor:

In answer to Mass. regarding long draft spinning will say that everything considered, a long draft is not as desirable for making first class yarns as a short draft is. So far as reducing the cost is concerned, a long draft is one step toward this end. But as a straight forward manufacturing proposition, few expert manufacturers would care to stake their reputation on the desults obtained from a long draft.

For making coarse carded yarns, a long draft is not entirely objectionable. But for fine yarns, a long draft is not advisable. I take this ground because there is no guarantee that the yarn will be perfectly even. When making coarse yarns, say up to 16s or so, with a draft of more than ordinary, there is plenty of stock behind to sustain the extra long draft. As a rule the cotton will be all short cotton, and it does not have to be pulled very far apart. What is meant by an extra long draft, would be one which would be over 10 to 12 with double roving, and possibly extend from 16 to 20 or more. This would mean spinning No. 16s yarn from say 80/100 hank to one hank single, or 160/100 to two hank run double. The latter, would of course make much evener yarn than when run single. An extra long draft like this usually necessitates four lines of drawing rolls. The draft would have to be divided chiefly between the second and third line facing the frame, and between the first and the second line of rolls. In case of drawing with a draft of 16, there would be a draft of 4 at each place (4x4 equals 16). If a draft of 20 is wanted, there will be a draft of 5 and 4 at each point respectively (5x4 equals 20). This means that there would be a draft of 5 between the first and the second line, and i between the second and the thir.l lines. Moreover, another problem enters into the long draft system which must not be overlooked. Where there is an extra long draft split between two or more points, the final draft will flatten and spread out the stock so much, that it will not work right. It will make fuzzy yarn. This is because the outside fibres near either side of the sliver will be delivered almost at a right angle as they are being twisted into a compact strand thus;

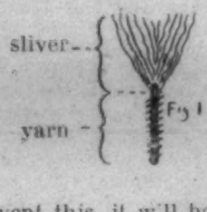

Fig 1

In order to prevent this, it will become necessary to have a second line of traverse rods to which must be attached a trumpet for each end between the first and the second lines of rolls. This re-enmasses the fibres and condenses them again, and prevents the strand from flattening out so much, and spreading. This trumpet must be of the open type. That is: the top of the trumpet must be cut off. This is because it is not possible to thread this trumpet on "the fly." It must thread itself automatically thru a trumpet

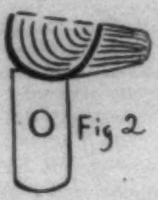

Fig 2

This system has been used, on coarse yarns up to 12s yarn, but it involved so much extra work that the system was discarded some years ago. The extra cost of handling offset the gain of having less processes.

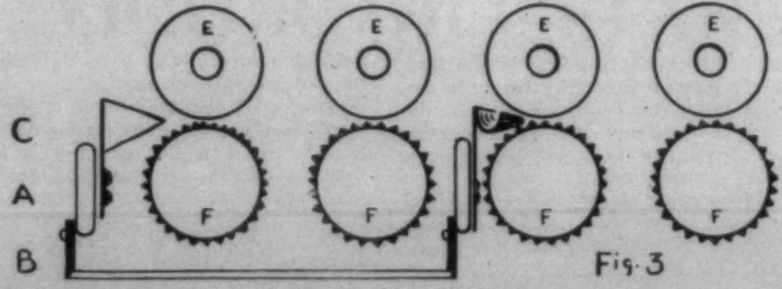

Fig. 3

shaped something like the following cut:

Figure 3 is cross section of 4-roll frames for long drafts.

A Traverse rods which move the attached trumpets in unison

B Traverse connecting bar

C Regular trumpet as ordinarily used

D Open trumpet necessary to use with a long draft

E Top rolls

F Steell rolls.

Now, when making fine yarns with a long draft, such as 40s to 100s it cannot be done smoothly with any system, because there are so few fibres per strand of yarn. Even when the stock is combed, there is no positive guarantee that all of the fibres can be of the same length or all of the longer staple. This will make uneven yarn. If one or more fibres are dropped or broken as is likely, the yarn cannot be evenly drawn out. Every fibre is required to make a nice round smooth fine yarn. Again, the long fibres having to be drawn so far apart, with the long draft, there is danger of the fibres getting broken and this will cause fuzzy and uneven yarn.

Unless any new system which is brought about, can overcome all of these difficulties, it will be taking a long chance to adopt generally the long draft system. The time has not yet come when a bale of cotton can be placed into a hopper, whirled around a few times, and soon be shredded into yarn by cutting the processes into halves. H. D. M.

Bladenboro Cotton Mill Entertains.

J. L. Bridger, vice-president and general manager of the Bladenboro Cotton Mills, Inc., Bladenboro, N. C., recently gave a very elaborate turkey dinner at his home to the officers, foreman and overseers of the three mills. Those attending were:

R. L. Bridger, president; C. O. Bridger, secretary-treasurer; J. A. Bridger, attorney; S. M. Butler, accountant; J. F. Pruitt, overseer spinning Mills Nos. 1 and 2; E. L. Lassiter, overseer carding Mill Nos. 1 and 2; D. L. Kelley, overseer carding Mill No. 3; H. G. Reynolds, overseer spining Mill No. 3; Clarence Butler, master mechanic; J. W. Johnson, yard foreman.

Immediately after dinner the party enjoyed immensely a smoker and an hour of good jokes and laughter.

This chain of mills, even though seriously handicapped by the severe drought of the fall of 1925, enjoyed the best year they have since the return of business to normalcy immediately after the world war.

The products of these mills are marketed direct hrough their own selling offices, they have converted their products into a new line of trade that is more healthy by far than the old line of cotton yarn for cheap hosiery and underwear and this has already reflected into the profit of operation. Their offices are under the management of E. F. Redding, 307 Kinney Building, 4 West Third Street, Charlotte, N. C., and Forrest Brothers, 11 South Fourth Street, Forrest Building, Philadelphia, Penn.

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The Importance of the Technical Man to the Textile Industry

Address by Dr. E. C. Brooks, President of the North Carolina State College,
before Southern Section, American Society of Textile
Chemists and Colorists.

THE textile industry is a great connecting link between the cotton field and the finished fabric of the home. It is therefore seriously affected by the enemies of the cotton plant, by trade conditions and by the state of mind of men and women in the home. No other industry in my judgment is affected by so many apparently unrelated agencies, none is subject to so many social and economic influences; and none is dependent upon the application of so many different arts and sciences. Who would have thought until recently that King Tut, dead many centuries, would be guiding the designers of today and scrapping many of the fabrics already woven; that a little bug from Mexico had the power to change agriculture, to shorten the average length of the cotton fiber and create a panic in the economic world; or that the murder of an Austrian prince would give America a new dye industry and create new interests among designers?

The cost of labor, material and skill that enters into the production and manufacture of cotton and its by-products and into the distribution of the finished products to the consumer, it is estimated, amounts to about two billion dollars annually. Does a two billion dollar business need technically trained men? Ask the great steel corporations, the great electric companies and other great industrial plants. Is the technique of the textile business so simple that a wayfaring man may readily understand the differences in fibers and convert raw products with raw labor into a variety of highly finished products to the full and complete satisfaction of a society that is often whimsical in its demands, vacillating in its patronage, but constantly increasing in culture and in its demands for new ideas which must be the products of more finished artists? Moreover, the relationships of the arts and sciences and mechanics of the great industry are such that the manufacturer becomes nervous over a proposed research that might suggest a change in some of his processes, because one change, although it may appear to be very simple, may affect the grade of fiber in use, the machinery installed, the labor employed and the business of the institution.

It took the nerve as well as the wealth of a Carnegie to tear down a newly constructed mill and to erect an entirely new plant when he was convinced that certain new discoveries in the process of making steel would within a few years place his newly constructed mill at a disadvantage with those who employed the new discoveries in science. This emphasizes very strongly the great need of scientific research and trained men working on the problem constantly, in order that the manufacturer may make his adjustments gradually. Only a few men can secure readily the necessary wealth to erect an entirely new plant after the old has been deliberately discarded, yet every great business must be adjusted to social and economic changes.

I may repeat here what is heard so often: There are many serious problems confronting the textile business. Every factor that affects the fiber on the plant, the processes in the mills or the domestic uses, becomes sooner or later a problem for the manufacturer, and so difficult is each of solution that only the scientist can solve them, and the future of the textile business depends upon the solution.

In the first place it is proper to ask, what is the effect of soil and climate and fertilizer upon the cotton fiber?

I know a successful farmer of this State who sees so clearly the difficulties ahead that he maintains a laboratory on his farm which contains many pots in which different varieties of cotton are grown and he is seeking to learn for his own profit the effects of different soils and fertilizers on the fiber which he produces. He has a research department in which he is trying to answer one of the most important questions now confronting the textile man—remember—this is a farmer working at the task. He realizes that even a cotton plant needs the results of the best sciences that can be supplied.

I do not have to ask the textile men if they are interested in such research and what value it would be to them to be able to purchase from the farmers the most perfect fiber for different classes of fabrics which can be relied upon to take the best dyes that can be produced. The study of the fiber should begin on the farm and in my judgment there is needed close co-operation between farmers and textile men. I do not believe cotton production and cotton manufacturing will reach a stable basis until this co-operation is reached. Will it come through the Cotton Co-operative Association working with the textile men, or will it come otherwise? In the end I believe it will come.

At State College the Schools of Agriculture, Engineering and Science and Business are co-operating with the Textile School. Moreover, we are conducting research into the factors that influence undeveloped fibers—those grades which reduce the income to the farmers, bewilder the manufacturer and create a problem for the scientists and designers in the use of dyes and colors.

Considerable complaint has come from several mills regarding cottons that fail to take dyes uniformly. In the mill trade and among dye experts this has been considered due to immature fibers. Previous research with several varieties of cotton from different sources indicate that the condition known as "immature fibers" is not necessarily an immature condition, but is rather due to undeveloped fibers. At the present time our research department is seeking to determine the causes of these undeveloped fibers in cotton and when these causes have been established it should be possible to eliminate the undeveloped fibers to a large extent. This research involves the thickness of fibers, the distribution on the seed and the relative number on the cotton plant.

We are also conducting research in the chemical changes in the cotton fibers during storage. In other words, what is the value of curing cotton before it is ginned? Does the fiber actually increase in length and does it possess more life as a result of this curing process? But note how one investigation leads to another. We are immediately confronted with this question. What is the relation of the physical characteristics of the fiber to its spinning qualities? Do you not see the advantage of technically trained men in the study of this great question before the fiber leaves the field? Our research department has actually given to the State a new variety—a heavy bodied uniform inch to inch and a sixteenth cotton. The spinning tests show that this variety is as good as the best North Georgia and Delta cotton of this type. Other tests have shown this fiber to be stronger than the same type grown in the Delta region.

I mention this to show what is possible if we could have sufficiently trained men and resources to conduct such research on a large scale. Would it not pay the manufacturers to encourage such research in order that they might have the scientific results and trained men to make the proper application?

Already the number of technically trained men is so small that even manufacturers cannot secure a sufficient number who understand the peculiar characteristics of the fiber as it passes through the mill and who have the required skill to detect the defects and separate the live from the dead and assign each to its proper uses.

The second question I wish to ask is this. How much accurate knowledge do we possess as to the natural qualities of the fiber? Why does one variety when properly treated give richness to the fabric such as the softness of wool, and why do certain fibers submit to mercerization more readily than another? What causes one grade of fiber to receive and another to reject? Another research problem concerning the infiltration of liquids into the cotton fiber should give some light on the penetration of dyes. More thorough penetration it is said has been accomplished by the use of a vacuum oven, but to what extent this could be applied to the dyeing industry must yet be determined. But this is another evidence of the need of trained men and resources to pursue these investigations to a conclusion.

As I walked through one of our buildings, the walls of which had been recently painted, I noticed the paint peeling off. I asked what is wrong with the paint? "Nothing," was the reply. "The trouble is in the character of the surface on which it is placed." Have we technicians who can tell when the trouble is with the fiber and when it is with the dye? To know presupposes technical knowledge of both the fiber and the dye.

At State College our department of textile research has been making a study of the factors that give strength and lustre to yarns and whether certain varieties of cotton grown in North Carolina can give the finer yarns capable of being woven into the finest dress goods for ladies. So pressing is the need for more reliable knowledge that even our large mills are now establishing research departments. One has recently been established in Greensboro and I predict that the number will greatly increase.

One of the most interesting developments in the textile business, however, is the contribution made by American chemists to the dye industry. Your Mr. Stone in an address to the textile students of the North Carolina State College in December, 1924, gave some very interesting figures, showing that in 1914 scientists in America were producing about ten per cent of the dyestuff consumed by the manufacturers. But the World War threw American scientists on their own resources, challenging their skill and genius, and we know the results. By 1923 the United States was producing ninety-two per cent of the domestic consumption, but who will forget the agony through which the textile business passed while our scientists were learning? Shall we wait for another world cataclysm and another period of intense anguish before another opportunity will be given our scientists?

American scientists in addition to making many of the dyes described in the literature available at the outbreak of the war have made a number of entirely new types which are finding a needed place with the dye consumers. Moreover, dyers of today are far better trained than they were ten years ago. Our textile schools, our research departments in industries, our schools of science in our colleges and universities have all contributed to this development, but mark you, the developments are due to technically or scientifically trained men, and the fact still remains that we are not yet keeping pace with the demand, as the manufacturer well knows, for he is anxiously seeking to combine in his business the best scientific skill in the production of dyes with the skill of the artistic designer who knows how to blend his colors and produce those patterns that a changing society demands. Where are the artists that can answer the question?

Observe the number of unsolved technical problems that we have passed in the progress of the cotton from the field through the factory. Observe further the number of differently trained experts needed—one in soils and plants and the use of fertilizers; one in the study of cotton fibers, their grades and proper uses; one in the mechanical processes to improve the progress of the fiber through the mills, and one in the use and improvement of dyes and colors and designing. Here in this one great industry you can easily see that the leading arts and sciences meet to minister to public wants.

I believe our men and women in North Carolina, as well as in other Southern States, have the character, energy and native ability to equal the best technicians anywhere in the world. What is needed is an opportunity. We have discussed the need of elementary and high school education, but little has been said about offering opportunities for men and women in the industrial arts and sciences. Where are the great research laboratories in our State or in the South, where our people can learn the scientific methods and acquire new knowledge and higher training to fit them as technicians into the textile world?

We have had for years at the North Carolina State College a Textile School devoting its major efforts to giving instruction in the arts and science already known. We are now increasing very materially the size of the Textile School with a view of establishing a great research laboratory that will give opportunity to our people to progress cautiously from the known to the great unknown in this industry. The textile business, it seems to me, has been neglectful at this point. Many of our mills now cannot progress because further progress leads them into the unknown. But it is this unknown that always beckons the scientific mind and the great adventure can be safeguarded only as more research into pure science makes possible new applications.

The use of dyes, however, has brought another problem to the manufacturer which can only be solved by new investigations and the discovery of new methods of control. All around us here we feel the growing hostility of the people of the country side as well as of our city suburbs because of the effects of the waste dyes and other products on our streams and water supply. A members of the State Board of Health held a conference recently with the members of our Chemistry Department, asking the chemists to begin a research for the purpose of ascertaining the best way to eliminate this evil which is affecting the people seriously. In most of our communities the control of these waste products is settled only temporarily. What is a real evil and what is merely a fear have not yet been determined, but the results are the same, and as population increases this problem will become more and more acute. Scientists should be put to work at once, even at a cost of hundreds of thousands of dollars, that the manufacturer may have real assurance that the hostility will come to an end and that the problem will be solved satisfactorily. But the resources are not at hand to make the tests, nor are the men available, but they would become available if the opportunity were presented properly.

We need to know not only how to bring the right elements and materials together that produce the dyes and colors for the use of the designers, but we are now confronted also with the task of separating and destroying or nullifying the effects of these same elements as soon as they leave the factory, for the problem will become more acute as population becomes more congested.

Do we need more technically trained men? Why we have just begun to go forward into a new textile world, and also into a new social world making a new demand on the textile world. And this leads me beyond the factory. We have come from the cotton field to the factory, but the need of technically trained men does not stop within the factory.

Social and economic conditions are changing. Who from the South is studying the forces or influences that direct the scientists and create new demands for new designs? When the textile industry was in its infancy mass production was the simplest form of manufacture and the surest way to success, but the standards of all classes of people are rising. Even the poor classes are not satisfied with the coarser fabrics of a generation ago and all the way from the lowest strata, economically speaking, to the highest manufacturer is confronted with new demands,

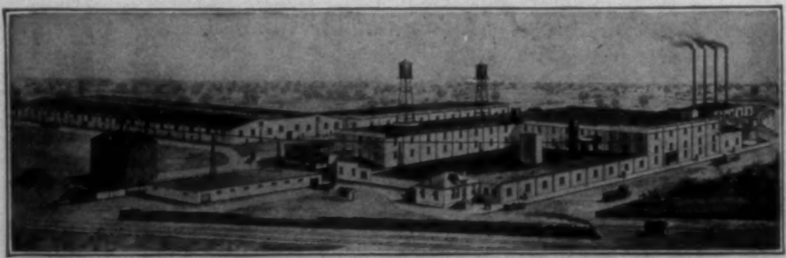
Th question of marketing is of tremendous importance. The demand for expert advice at this end of the business is just as great as it is at the cotton field, the beginning of the industry. If this applies to the marketing of goods in America, how much more does it apply to marketing in foreign countries? For example, I am told that Mexico might be a favorable market for certain grades of goods, the common gingham of example. But in order to reach the people of Mexico, what kind of technician does the manufacturer need? Here in all probability a knowledge of the textile processes is relatively unimportant. But what is of prime importance is a knowledge of the people, their language and business ethics; transportation and a knowledge of competing firms in other countries of the world; a sufficient residence in the country to make personal contacts and build confidence, and finally, skill as a salesman. At this end of the business, therefore, the manufacturer is dependent upon a high degree of skill that has its back-ground in economics and sociology. Or perhaps the manufacturer has been too much satisfied in the past to empoy men unrelated to his business to carry such Message to Garcia. But let me give a case that is somewhat parallel.

When the American Tobacco Company desired to enter foreign countries it picked its men from its own business and they were natives of North Carolina or of the South. They trained them and sent them to China and India and South Africa. They are now seeking men trained in the art of cultivating tobacco that may be sent to South America. Such a policy released the energies of our people and gave them an open road to fame. As a result James Buchanan Duke of North Carolina was given to the world. The tobacco business, therefore, is controlled in a large measure by Southerners who were given opportunity and the necessary training. A similar policy pursued by the textile business would quicken the consciences of our own peole, given an opportunity to our own young men for larger training and greater mastery of the textile world. The lever controls of the textile business should be located in the South, but it will not be so located until Southern men have the training and skill and opportunity.

I have been discussing the needs of a great business, but I am more concerned primarily that our people shall have an opportunity to become great technicians in the textile world. A textile school can help materially, but when young men leave college they do not have the maturity or practical experience

(Continued on Page 22)

VICTOR MILL STARCH – The Weaver's Friend



It boils thin, penetrates the warps and carries the weight into cloth. It means good running work, satisfied help and one hundred per cent production.

We are in a position now to offer prompt shipments.

THE KEEVER STARCH COMPANY
COLUMBUS, OHIO

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NOPCOV

For Better Finishing

NOPCOV is used to great advantage in the finishing of piece goods, in place of ordinary sulphonated oils, turkey red oils, etc. Not over half the quantity of NOPCOV should be used as would be required of a 75 per cent turkey red oil.

The use of NOPCOV in finishing results in a very much finer, softer feel to the goods, better lustre, **entire absence of odor,** and a freedom from any tackiness such as is often encountered with turkey red oils or other oils made from castor oil base which are always, by nature, more or less sticky.

On account of the small quantities of NOPCOV required to produce definite effects and the superior results produced, this oil falls into a class by itself from both a quality and price standpoint.

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Cotton Mill Processes and Calculations

By D. A. Tompkins.

Copy Revised for Third Edition.

(Continued From Last Week)

SPECIFICATIONS.

229. Following is a sample blank to fill out in ordering slashers:

Number of Slashers ____________
Size of Beams in Creel ____________
Number of Beams in Creel ____________
Length of Loom Beams over all ____________
Size of Driving Pulley ____________
Speed of Driving Pulley ____________
Belted from Above or Below ____________
Type of Expansion Comb ____________
Length of Cuts ____________
Number of Cylinders ____________
Diameter and Face of Cylinders ____________
Steam Trap (Squires) ____________
Steam Guage (Ashcraft) ____________
Steam Regulator (Watts) ____________
Number of Vats per Slasher ____________
Copper Lined ____________
Width of Vats ____________
Type of Creel ____________
Overhead Track and Pulley Block ____________
Chain Hoist ____________
Warp—Number of Ends (maximum and minimum) ____________
Warp—Number of Yarn (maximum and minimum) ____________
Pounds Per Day (10 hours) Production Required ____________
Maker ____________
Purchaser ____________
Price ____________
Terms ____________
Remarks ____________

Drawing In.

230. After warp has been sized and wound on loom, before going to the loom, it must be "drawn in." Every end of warp must be drawn through an eye in the harness and a dent in the reed.

The harness and reed are, strictly speaking, parts of the loom, but they are taken out for the purpose of threading the warp through them.

The warp beam is put on the drawing-in-frame. The sheet of warp is thrown over the top rod. The harness is suspended near the top. The operative with a drawing-in-hook reaches through each eye of harness and pulls a warp end through.

There are two or more harnesses, according to the character of cloth to be woven. The effect of various numbers of harness will be fully discussed in the chapter on weaving. If two harnesses are used, one end of warp is drawn through an eye in one harness, and the next end through an adjacent eye in the other harness. If more harnesses are used, the ends may be drawn in in various ways according to design of cloth.

A "drawing-in-draft" is made to indicate how this work is to be done. This is made when cloth is designed. When warp is drawn in the harness, it is then drawn in the reed, while on same frame. No matter how many harnesses are

(Continued on Page 27)

HOUGHTON

PROOF OF RESPECTABILITY

by Chas. E. Carpenter

BEN boasts that he only accepts advertisements in his publication from reputable advertisers.

Ben has solicited Houghton's patronage on advertising for many years and his representatives have set up a loud wail, because they have not been successful in obtaining it.

Therefore, according to Ben, Houghton must be reputable.

Houghton boasts that it advertises in none but reputable mediums.

Houghton's advertisements have not appeared in Ben's publication for years.

That's my case.

I really do not know who started all this row about cotton softeners, but the entire Houghton organization is most grateful to whomsoever is responsible for that action, because it has awakened the mill men as they have never been awakened before on the subject and the Houghton Men have been obtaining audiences with far greater ease. In fact mill men seem to actually want Houghton Men to call and all of this has brought about a most decided increase in Houghton's sales among the mill men; an increase which would probably have been effected in no other way. Honestly! Our sales have been so good, that I am almost tempted to write Ben a letter of thanks. I would if I thought he would accept it in the proper spirit, but somehow I have the notion that Ben is a poor sport.

When a Houghton Man calls on you, please remember that he has been trained to render service. It is not his object to talk you into signing on the dotted line; above everything he is not interested in selling you something you do not want, for you have the privilege of returning any purchase from Houghton which you do not want and the transportation costs are charged to the man who made the sale. A Houghton Man aims solely to render service and hopes by thus rendering service to obtain an order and make a permanent customer and booster for Houghton Products.

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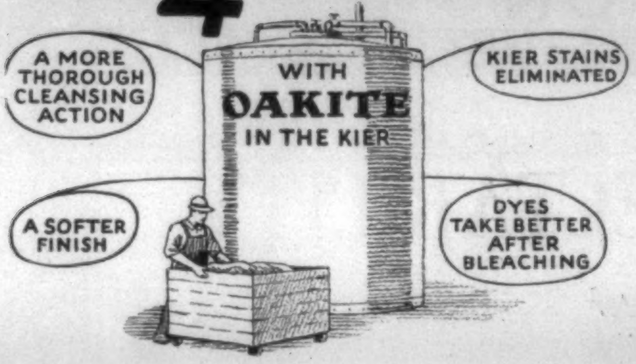
AND ALL OVER THE WORLD

Oils and Leathers for the Textile Industry

THESE 4 IMPROVEMENTS


A MORE THOROUGH CLEANSING ACTION
WITH
OAKITE
IN THE KIER
KIER STAINS ELIMINATED
A SOFTER FINISH
DYES TAKE BETTER AFTER BLEACHING

graphically illustrate the story of the better results that are obtained by textile mills using Oakite in boiling out their goods. No radical change in method is necessary to secure them. Simply add a small amount of Oakite to the kier and cut down on the amount of caustic.

Oakite in the kier boil serves several purposes. It assists the caustic in removing the waxes, it diminishes the possibility of injury to the goods and it assists in rinsing the cotton by preventing the formation of insoluble soaps in the fibres. The result is a product which comes through all following steps of the process whiter, more thoroughly cleaned and more uniformly finished.

Our booklet "Wet Finishing Textiles" contains many suggestions and facts about the use of Oakite that should be of interest and value to you —write for it.

70 Oakite Service Men, cleaning specialists are located at,

Albany, Allentown, Pa., *Atlanta, Ga., Baltimore, Boston, Bridgeport, *Brooklyn, Buffalo, Camden, Charlotte, N. C., *Chicago, *Cincinnati, *Cleveland, *Dallas, *Davenport, Dayton, *Denver, *Des Moines, *Detroit, Erie, Flint, Mich., Grand Rapids, Harrisburg, Hartford, *Indianapolis, *Kansas City, *Los Angeles, *Milwaukee, *Minneapolis, *Montreal, Newark, New Haven, *New York, *Oakland, Calif., Peoria, Philadelphia, Pittsburg, Portland, Me., *Portland, Ore., Providence, Reading, Rochester, Rockford, Rock Island, *San Francisco, *Seattle, *St. Louis, Syracuse, Toledo, Toronto, Utica, *Vancouver, B. C., Williamsport, Pa., Worcester.

*Stocks of Oakite materials are carried in these cities.

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TRADE MARK REG U S PAT OFF
Industrial Cleaning Materials and Methods
OAKITE IS MANUFACTURED BY OAKLEY CHEMICAL CO.
47 THAMES ST., NEW YORK, N.Y.

Importance of the Technical Man to Textile Industry

(Continued from Page 19)

necessary to do the work of great technicians. But they may become great masters if the opportunity is presented. The development comes through years of experience working within the right environment where laboratories are convenient and time is available for exclusive research.

A two billion dollar business that affects so many men and women and children needs men technically trained in scientific agriculture; in social relationships; in physics, chemistry and mathematics; in mechanical, electrical and sanitary engineering, and in science and business. Our Textile School is seeking to bring together programs of studies drawn from these sources for the benefit of men desiring to enter certain phases of textile manufacturing. And as I said above, we are nearly doubling the capacity of the school in order to build a great research department where the cotton fiber from the field through the factory may be scientifically studied.

The Textile School desires to work in co-operation with the mills and our laboratories are placed at their service. As an evidence the members of the family have already performed the following work for individual mills:

They have tested the breaking strength of yarns and fabrics and have made samples of fabrics for mills. They have investigated the cause of canton flannel curling and the cause of mildew in certain fabrics. They have analyzed sizing compounds and made tests of print cloth for thickness before and after bleaching. They have investigated the causes of streaks in mercerized hose and the requirements to give cloth a softer finish. They have tested dyes used in mills, analyzed samples of fabrics and have given expert advice as to proper adjustments in machinery to make fine yarns in the place of a medium grade of fabrics. Now we are making preparation to do much more. But we need the co-operation of the textile industry.

I have referred repeatedly to the research at the North Carolina State College of Agriculture and Engineering because it is one of the outstanding institutions of the South, where a comprehensive program is proposed to give technically trained men to the textile industry. But this is not enough. There should be found in North Carolina and in other Southern States great laboratories where scientists may work and study and experiment, where trained minds may have the opportunity to conduct research in every important phase of the textile business; where young men with scientific tendencies may enter and pursue investigations and develop the scientific habit; and where the textile industry may refer problems that perplex and bewilder the manufacturer.

The answer to many of these questions is still in the unknown and the entrance is through research and the door can be opened only by the scientist, and my plea this evening is to give him the means and the opportunity.

Report Attempt to Burn Textile Mill.

Biddeford, Me.—An attempt was made to burn the Pepperell Mills Monday night by throwing bricks warpped with cotton saturated with oil through two windows in the plant, the police made public here. The company has had labor troubles since December 1.

The discovery was made during the night by watchmen while making their rounds. Their attention was attracted by drafts of cold air. Investigation showed that windows had been broken, one on Smith street and the other on Laconia street. Near the broken windows, within the mill, were bricks wrapped with oil soaked cotton. The cotton was charred.

The police are working on the theory that the covering was fired and the bricks thrown through the mill windows from the street less than fifty feet away. The first was extinguished when the supposed flaming missiles struck the glass.

The mill management reported that 1,500 looms are in operation, a gain of 500 during the past week, and that enough looms fixers are working to insure successful operation of the looms.

Egypt to Reduce Acreage by Decree

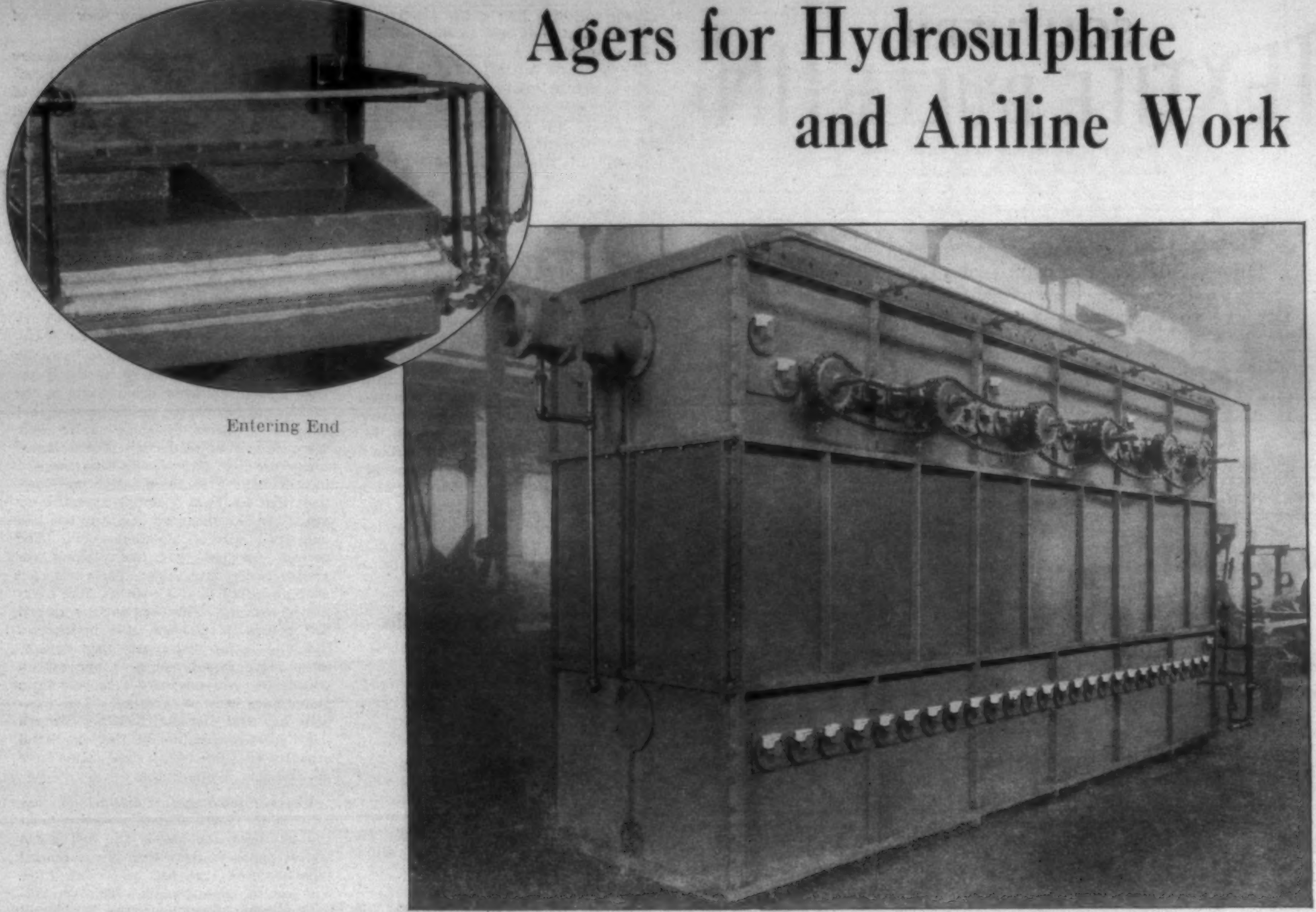
Washington, D. C.—Information that Egypt is to reduce cotton acreage by royal decree has been received by the department of agricuture. The decree is said to prohibit all persons to cultivate in cotton more than one-third of their land in 1926. Violation is to be punished by uprooting of the crop and a small penalty. It is estimated in Egypt that the reduction in acreage to be affected will amount to 180,000 acres.

The department of agriculture also anounces that Australia has removed its quarantine order prohibiting the import of cottonseed and lint. Regulations providing that all seed shall be unloaded at Brisbane and all raw cotton at Melborne, and that both shall be disinfected, have been promulgated.

England's Exports.

England's cotton goods exports for the year 1925, amounted to 190,000,000 pounds of yarn, and 4,434,000,000 yards of cloth. For cloth, the figures were slightly lower than for 1924—for yarn, slightly greater showing the tremendous decrease in England's exports of cotton cloth, however, we would call attention to the fact that in 1913 her exports were seven billion seventy-five million yards, with exports of yarn of 210,000,000 pounds. It is estimated that the British exports of cloth and yarn for 1925, represented approximately 2,423,000 bales of cotton, as compared with 2,367,000 bales for 1924, and 3,657,000 bales for 1923.—Bulletin of Hunter Manufacturing and Commission Company.

Agers for Hydrosulphite and Aniline Work



Entering End

Butterworth Agers are equipped for all classes of hydrosulphite and aniline work and have perforated steam pipes top and bottom. Heating coils for high pressure steam are placed on either side or bottom. This enables you to readily produce and conserve a high temperature. There is a patented automatic mouthpiece for entry and delivery of cloth. This excludes practically all air.

In the construction of Butterworth Agers, every precaution is taken to prevent the formation of drops of condensation. All joints are planed and bolted, making an absolutely air tight box. There is an automatic ventilator to permit the outlet of steam and gases.

Butterworth Agers are easily controlled, being equipped with valves necessary for doing all kinds and character of hydrosulphite and aniline work.

Butterworth Agers can be had in any length, each section being 6 feet long and fitted with a door 18 x 24 inches.

Journals are fitted with Butterworth Sharpe grease cups, which assure constant lubrication as long as the Ager is operating.

Butterworth Agers are furnished with cut sprockets and roller chains, as well as with cut bevel gear drive. In the latter drive, all top rollers are driven, eliminating pull on the cloth.

We'll be glad to go into further details of Butterworth Agers, and remember that Butterworth engineers are always ready to help with any of your finishing problems.

H. W. BUTTERWORTH & SONS CO.

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SOUTHERN
TEXTILE BULLETIN

Member of Audit Bureau of Circulations
Member of Associated Business Papers, Inc.

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David Clark	*Managing Editor*
D. H. Hill, Jr.	*Associate Editor*
Junius M. Smith	*Business Manager*

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The McLaurine Letter

ON page 12 of this issue we are publishing a very interesting letter written by our good friend, W. M. McLaurine, secretary of the Cotton Manufacturers' Association of Georgia, to the members of his Association.

McLaurine is a very efficient secretary and intensely interested in the welfare of the textile industry, but we can not follow him in all the conclusions he has reached.

We can not follow him when he speaks of the rapid development of the textile industry in foreign countries and about our ability to compete in foreign markets. We can not see that there has been any rapid development in recent years, and while we can not boast of a large share of the world's trade, we certainly consider that, in view of the reduced buying power of the world, we are doing comparatively well in exports of cotton goods.

Mr. McLaurine seems to be alarmed about the development of cotton growing abroad, but in our opinion it is a needless alarm.

Cotton can be grown in many countries of the world, but with the exception of the short staple crop of India none of it can be grown in competition with the Southern States of the United States.

There is an organization in England, fostered no doubt by those who get their living from same, that subsidizes cotton growing and publishes many articles about the development of cotton in the British Empire, but we would hazard a guess that the average cost per pound of the cotton grown has been above $1 and the records show that the production has never been of any moment.

The same people could buy a few farms in Texas and raise more cotton than all the land they have planted in Africa and South America and could raise it at half the cost.

There is no foreign country in the world except India that can raise cotton for 20 cents per pound or can hope to regularly compete with the United States in cotton production.

It is one thing to raise, under a subsidy, a few thousand bales of cotton but quite another to raise cotton as a business proposition in competition with this country.

Mr. McLaurine's grandchildren will have grey hairs before we need to be seriously alarmed about foreign cotton growing.

We agree with what he has to say about night operation and do not hesitate to say that for every dollar the South has made by night runs they have lost five dollars as a result of the added production.

The right of an individual mill to use its own judgement about night operations can not be denied, but it is equally true that night operations have played havoc with prices and profits.

Located in a coarse goods section McLaurine says that there are too many looms on coarse goods, just as many in fine yarn sections would probably say that there were too many fine yarn mills.

We agree that there are too many mills operating at night, but we can not agree that there are too many mills in the South.

There are too many antiquated and inefficient mills, but the man who builds a new mill with modern machinery has, in our opinion, nothing to fear.

At the end of a year of small profits to most mills, one mill of 22,000 spindles has made such large profits that they are to double their equipment.

They were built in 1922, at peak prices, while many mill men shook their heads and said that such a mill could not earn dividends upon the investment.

Some of those who shook their heads earned nothing at their $20 per spindle mills last year, while the high cost mill made substantial profits.

The truth is that a new mill equipped with modern machinery can produce better goods and more goods at less cost and with less waste, and those factors mean success and profits in spite of higher capitalization.

We may have too many old mills and we do not approve of the movement of certain carloads of "junk" from New England to the South, but the man who builds a new mill will be able to come through under Mr. McLaurine's theory of the survival of the fittest.

We commend the McLaurine letter in most of its expressions, but in a few instances we can not follow him.

Where Are The Feeble Minded

ONE of the Meddling Departments of the University of North Carolina recently published the alleged results of a study made in two North Carolina cotton mill communities.

The report stated that 50 per cent of the children in one community and 34 per cent in the other were feeble minded, but when requested to name the communities, they refused.

If we can secure the names of the communities we will employ an experienced man or woman to make another survey and we would therefore welcome any information disclosing the location of the former studies.

It has been reported that Durham and Hickory were the points studied, but from our acquaintance with the mill people of both communities we can hardly believe that even a college instructor would declare that children of either community were 34 or 50 per cent feeble minded.

The men who made the "hunt" for the feeble minded must have been seen by some mill officials and we would therefore appreciate information relative to the points investigated.

We will treat as confidential the name of the man sending us the information, but would like full details including the dates and the names of the investigators.

Discusses Fancy Weaving

THE following letter was received this week from an experienced and well known mill man who wishes to add his views to the several letters called forth by our recent editorial of "Fancy Weavers."

Since I am a subscriber to the Bulletin and having worked in various departments of cotton mills for several years, I am taking this privilege to examine ideas concerning fancy weavers and their field of work.

It appears to me that to be a master weaver it is essential to be a good loomfixer, a good designer, a good judge of yarns, fair to the help and company alike, and to know cloth and people. In short a man must produce the best fabrics at the least cost. To be a master weaver requires greater knowledge than to just manage help, keep the time and draw the pay.

In many cases the superintendent is not a designer and the mills are too small to keep a designer and in such cases it is necessary for the overseer of weaving to be a capable designer.

I think it a good motto to always try and encourage every overseer and operative to apply themselves in every way for advancement in their line of work. It has been said that certain departments in the mill should furnish the superintendent, that these departments by their nature were more capable of producing efficient superintendents than the weaving department. I have in mind a Southern cotton mill company that has been operating around forty years. In this time this company has had only two general superintendents. The present one has held this position for around twenty-five years. These two men were promoted to this position from overseer of weaving. This company has around half million spindles and close to fourteen thousand looms with assets that replacement value would run near one million dollars, on an average for each year these plants have been in operation. This company has paid excellent dividends through these years in addition to this wonderful growth. It is safe to say these plants have no superiors in the South.

I have in mind another cotton mill company in the South that is almost as great and has been one among the half dozen biggest money makers that has a general superintendent that has been with these mill around twenty years. This superintendent never was an overseer in the full sense of the word but had the stuff in him to succeed. I know a number of the most capable superintendents in the country and in each case these men developed through different channels to the superintendent's position. I feel that we are too much inclined to say our way is the best way and when a superintendent has arisen to that position from a certain department he feels that is the department best qualified for superintendent material. It is more in the man than in the department.

I have been interested in the articles recently calling attention to the care that should be exercised in selecting fancy weavers and designers. It appears to me that if the superintendent in charge is capable of ascertaining costs and will follow the results daily he should know at once what he is doing. The time seems to be past when a subordinate official or overseer can seriously hurt a cotton mill provided the management is efficient and active.

Dr. Brooks' Address

WE wish to call particular attention to the address of Dr. E. C. Brooks, president of the North Carolina State College before the Southern Section of the American Society of Textile Chemists and Colorists at their meeting last week.

This address appears on Page 18 of this issue and we hope it will be read carefully by Southern mill men.

Personal News

M. D. Haney has resigned as superintendent of the Stonecutter Mills, Spindale, N. C.

F. C. Pinkham has been elected president of the Gambrill and Melville Mills, Bessemer City, N. C.

Julian Butler is now superintendent of the Cape Fear Cotton Mills, Fayetteville, N. C.

T. C. Adams has resigned as superintendent of the High Shoals plant of the Manville-Jenckes Company, High Shoals, N. C.

J. M. Lumley has accepted the position of superintendent of the Ellenboro Cotton Mills, Ellenboro, N. C.

N. B. Murphy has been promoted to general superintendent of the No. 2, 3 and 4 plants of the New England-Southern Mills, Pelzer, S. C.

J. B. Bell is now assistant superintendent of the No. 4 plant of the New England-Southern Mills, Pelzer, S. C.

M. E. Ramborne, of McColl, S. C., has accepted the position of superintendent of the new Southern Brighton Mills, Shannon, Ga.

L. W. Cuddy was recently appointed superintendent and manager of the Gambrill and Melville Mills, Bessemer City, N. C.

Robert Huff, of Calhoun Falls, S. C, has become master mechanic at the Elberton Cotton Mills, formerly the Hamilton Carhartt Mills, Elberton, Ga.

G. E. McMinn has resigned as overseer of weaving at the Baldwin plant of the Aragon-Baldwin Mills, Chester, S. C., and accepted a position with the Glenn-Lowry plant of the same company, Whitmire, S. C.

H. L. Jay has resigned as night superintendent of the Calhoun Mills, Calhoun Falls, S. C., to become superintendent of the Elberton Cotton Mills, Elberton, Ga., formerly the Hamilton Carhartt Mills.

E. F. Fagin has resigned his position with the Calhoun Mills Calhoun, S. C., to become overseer of carding at the Elberton Cotton Mills, Elberton, Ga., formerly the Hamilton Carhartt Mills.

E. J. Bosewell has resigned as night overseer of spinning at the Calhoun Mills, Calhoun, Falls, S. C., to accept the position of overseer of spinning at the Elberton Cotton Mills, formerly the Hamilton Carhartt Mills, Elberton, Ga.

D. F. Poole, formerly superintendent of the Morven Mills, Durham, N. C., but more recently with the Steel Heddle Manufacturing Company, has accepted the position of superintendent of the High Shoals plant of the Manville-Jenckes Company, High Shoals, N. C.

C. D. McDonald, who recently resigned as superintendent of the Norcott Mills, Concord, N. C., has been reappointed to that position by the board of directors.

F. J. Haywood, secretary of the Norcott Mills and the Brown Manufacturing Company, Concord, N. C., has been elected president of the Norcott Mills. He will continue to act as treasurer of the Brown Manufacturing Company, for the present.

Ed Wooten has resigned as second hand in weaving at the Calhoun Mills, Calhoun, Falls, S. C., and is now overseer of weaving at the Elberton Cotton Mills, formerly the Hamilton Carhartt Mills, Elberton, Ga.

A. E. Kay, formerly superintendent of the Appleton Mills, Lowell, Mass., who was recently made general superintendent of the Norcott and Brown Mills, Concord, N. C., will have charge of the Brown plant only.

L. W. Rogers has resigned as second hand in weaving at the Harmony Grove Mills, Commerce, Ga., to become overseer spinning at the Randolph Mills, Franklinville, N. C. He is a graduate of the textile department of Clemson College.

James Oates has resigned as general overseer of carding at the Griffin Manufacturing Company, Griffin Ga., a position which he has held for the past 7 years. He was presented with a well filled purse as a token of esteem from his help.

Supper for Overseers.

J. T. Huneycutt, superintendent of the Riverside Manufacturing Company, No. 3, Pendleton , S. C., recently tendered his overseers a very enjoyable supper at the Calhoun Hotel, at Anderson. Those present were J. B. Holt, J. L. Wilburn, Sam Bowman, J. E. Wood and R. B. Cargill.

Oyster Supper at LaFayette.

On Saturday night January 23, at the community house of the Union Division of the Consolidated Textile Corporation of LaFayette, Ga., Frank Dennis, superintendent and general manager, delightfully entertained the overseers, second hands, fixers and office force, with a three course oyster supper, to show his appreciation of reaching a new mark in quality, production and cost. There were about sixty in all present at the affair. On the musical program, A. E. Stromberg of the office force rendered several very pleasant selections on the piano, while the Union Division string band with its able leader L. A. Morris kept the crowd lively with songs, buck dancing and pleasant music the entire evening.

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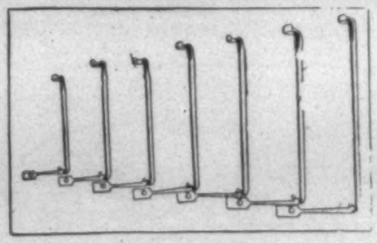

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It is expensive to experiment with your machinery—there's no need of experimenting when you can be sure of the best that is on the market.

When Flyer Pressers are made of the best of Norway Iron—by the best skilled workmen they are bound to excell. We have come up through 25 years of service in this line and we know how Flyer Pressers should be made. We are equipped to do your repairing and overhauling with the least possible cost.

MILL NEWS ITEMS OF INTEREST

Kingsport, Tenn—The new Borden Mills, Inc., are running their entire mill with a full day force and are now starting a night shift, and the help is fast being organized and trained.

Philadelphia, Tenn—The Philadelphia Hosiery Mills, under the management of E. W. Waller, has just completed a 50x80 foot addition and is now ready for the installation of more new machinery.

Cliffside, N. C.—The Cliffside Mills, manufacturers of ginghams, are installing machinery to begin the manufacture of towels. They also plan to have their own bleachery.

Dallas, Texas—It is reported here that the C. R. Miller Manufacturing Company, which controls several mills in this State, has completed arrangements for taking over several other mills in Texas. The names of the mills affected have not been made public.

Belmont, N. C.—At the annual meeting of the Linford and Perfection Mills, all of the officers and directors were reelected for another year. Semi-annual dividends of five per cent were declared by both companies.

Chattanooga, Tenn—Dixie Mercerizing Company, Carter Lupton, president, reported let contract to Mark K. Wilson Company Tennessee Electric Power Building, for $24,200 addition to Ridgevale plant; 1 story; all concrete; 107x103 feet; increasing mercerizing capacity of plant 250,000 pounds weekly; also addition to power equipment.

Belmont, N. C. — Humidifying equipment for the new Belmont Fabric Company, is being installed by Louis Hill general erecting manager of the Rhode Island Humidifier and Ventilating Company, who has a force of men here for the work. The Belmont Fabric Co. will handle waste yarns frim the several spinning mills of the Lineberger chain of yarn mills.

Concord, N. C. — At the annual meeting of the stockholders of the Norcott Mills, F. J. Haywood was elected president, suceeding C. W. Johnson of Charlotte. Mr. Haywood has been treasurer of the mill for some time. He is also treasurer of the Brown Manufacturing Company, and will continue to act as treasurer of that company for the present.

The directors reappointed C. D. McDonald superintendent of the Norcott Mills, a position he filled until two weeks ago. A. E. Kay, formerly superintendent of the Appleton Mills, Lowell, Mass., was recently appointed superintendent of the Norcott and Brown Mills, will have charge of the Brown plant only.

Winnsboro, N. C.—The United States Rubber Company, owners of the majority of the common stock of the Winnsboro Mills, which are operated by Lockewood, Greene and Co., managers, have purchased the latter company's common stock holdings. There will be no change in the management.

China Grove, N. C.—Decision to double the capacity of the China Grove Cotton Mills, was reached at a meeting of the directors. The mill now has 21,760 spindles and these will be increased to 44,000. The cost of the work is estimated at $850,000. The directors declared a semi-annual dividend of 5 per cent.

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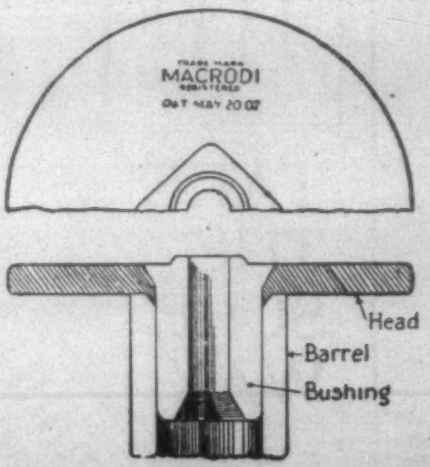

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Complete Topographic Surveys
General Designs, Grading, Planting and Detail Plans
Supervision of Landscape and Engineering Construction.

Largest Landscape Organization in the South

San Marcos, Texas—Morris & Co., Inc., Groversville, N. J., has selected this town as site for a new mill.

Salisbury, N. C.—A semi-annual dividend of five per cent was declared at the annual meeting of the stockholders of the Rowan Mills. The capacity of the mill was doubled during the past year and the affairs of the company were reported in excellent condition.

Roseboro, N. C.—The movement to establish a cotton mill here, as reported some weeks ago, has resulted in the organization of the Roseboro Mills. The company has a capital stock of $400,000 authorized. The incorporators are Troy I. Herring, G. A. Otter, O. E. Underwood and D. W. Tart, of this place. It is understood that the company plans a 5000-spindle yarn mill.

Mooresville, N. C.—At the annual meeting of the Cascade Mills, the reports of the officers showed the affairs of the company are in excellent condition. The old board of directors was reelected with the addition of H. S. Hosell, of New York, and W. H. Gibson, Jr., manager of the mill. A. F. Burton was reelected president and treasurer, E. W. Brawley, vice-president and Roy K. McNeely, secretary and assistant treasurer.

Gadsden, Ala.—The Davis and Alcott Hosiery Company has purchased 40 200-needle womens hose knitting machines, with fashion mark, reduced heel and mechanical latch open attachments. They cost $35,000 and are declared to be the latest and best machines of their kind. They will be installed in the new hosiery mill which the company is erecting on Ninth and Gardner streets.

Fort Mill, S. C.—Enlargement of the plant of the Fort Mill Manufacturing Company, is being planned, according to Col. Leroy Springs, president. The mill will also be changed over from ginghams to wide sheetings. The production of rayon fabrics is not being considered, Col. Springs stated.

It is also planned to build from 75 to 100 new houses for employees at the plant here, Col. Springs stated.

Prattville, Ala—The Autauga Cotton Mills are making many improvements in their plant here. They have installed new looms, displacing all the old machinery, and installing new and at the same time are preparing for the electrification of the whole plant. The new power will be largely furnished by the Alabama Power Company. The large transformers for that purpose are being installed now. It is expected that these improvements will mean greatly increased profits in the mill as they all provide a great saving of labor.

LaFayette, Ga.—It is understood that the Lafayette Cotton Mills are planning to enlarge their mill.

Albany, Ala.—News regarding the expansion program of the Albany Silk Mill is expected here in a short time. Plans for the construction of an addition were forwarded to Hoboken, N. J., the seat of the main offices of the company. Until now nothing definite has been heard concerning the disposition of them. It is understood here that definite word will be received in a week or two.

Ellenboro, N. C.—The Ellenboro Cotton Mills are installing machinery in their new mill here and operations are expected to be started within a short time. The company was organized last summer, with W. H. Belk, of Charlotte, president and J. A. Martin, sercetary and treasurer. J. M. Lumley is superintendent.

The mill has 2,500 spindles for making 10s to 30s yarns.

Newton, N. C.—The Warlick Manufacturing Company, which was recently organized here as noted, expects to let contract about February 1 for the construction of its mill building. The mill will be 80x200 feet, standard mill construction to cost $24,000. The plant will be equipped with 100 Crompton and Knowles dobby looms for the manufacture of dress goods.

Lando, S. C.—A fire visited the Manetta Mills village, burning four residences and endangering many others. For a time the blaze threatened to spread, but by demolishing a residence and by quick work of the mill's fire department it was checked. Some of the housekeepers saved little household goods. The houses were some distance from the textile plant. For a time, it is said, the flames assumed such proportions that it looked like the entire village was doomed.

Durham, N. C.—Stockholders of the New Yarborough Mill here held their first annual meeting this week and heard the report of E. S. Yarbrough, secretary and treasurer and general manager. The report covered the operations of the concern from the time of the formation of the company to the present, showing that in that time the mill has been built and operations begun. The first looms were started just before the Christmas holidays and it is stated that other looms will be added as rapidly as possible until all are installed.

Textile Colorists and Chemists Meet

The Southern Section of the American Society of Textile Chemists and Colorists met in regular session at the Alamance Hotel, Burlington, N. C., on Saturday night. The attendance was unusually large and the meeting was one of the best the Southern section has had since its organization.

A cordial and entertaining address of welcome was made by W. M. Williams, superintendent of the E. M. Holt Plaid Mills, of Burlington.

The principal address of the evening was delivered by Dr. E. C. Brooks, president of the North Carolina State College. He spoke on "The Importance of the Technically Trained Men to the Textile Industry." Dr. Brooks told how important a part the man of technical training is playing in the development of industry and of the advantage that technical training gives to the man who receives it. There is no doubt that technical training gives a man an initial advantage that he otherwise would not have, Dr. Brooks declared, the technically trained man being able to go ahead on new scientific problems which untrained men are not prepared to meet.

Dr. Brooks' address is published in full elsewhere in this issue.

A very instructive and interesting paper on "Dyeing Rayon with Vat Colors," which was prepared by M. T. Johnson, of the Judson Mills, Greenville, was read by R. H. Southern. This paper dealt with the problems connected with the vat dyeing of rayon and developed a great deal of useful information.

Other speakers were H. A. Barnes, superintendent of the Proximity Print Works, Greensboro, N. C., Mr. Bolin, of the Riverside and Dan River Mills, Danville, Va., Leonard S. Little, general superintendent of the Pacific Mills, Lyman, S. C., these speakers discussing the attitude of the mill men toward the technically trained man.

The Senoir class in textile chemistry and dyeing from the North Carolina State College attended the meeting, accompanied by Dean Nelson and Prof. Grimshaw, instructor in chemistry and dyeing. The association voted to establish a junior branch of the society among the textile students at State College.

After the reading of the technical papers. There was a general discussion among the members on the "Effect of Oiled Cotton on Mordants and Basic Dyestuffs" and the "Advantages of Using the Breton Minerol Process." This discussed was freely participated in by members and proved very interesting.

A highly enjoyable entertainment feature during the evening was the singing of a number of old time religious songs by a quartet from the colored Southern Methodist Church in Burlington.

It was voted to hold the next meeting of the society in Chattanooga, Tenn., about the middle of April. On account of the rapid growth of the Southern Section it is planned to separate it in two sections so that the membership can more conveniently attend the meetings.

The meeting was honored by the attendance of one of the Society's oldest members, John Hartley, of Charlotte, Southern representative of the Sandoz Chemical Company.

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Highest Grade Oak Tanned
For Cotton, Wool and Silk Looms

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Order a trial side to-day.
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MASS. MFG. BY WASHBURN NEW BEDFORD
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Experienced roller coverer. Apply to J. W. Cates, Superintendent Edenton Cotton Mills, Edenton, N. C.

Wanted
One No. 5 Kitson Condenser and a No. 5 Blower. Both must be in good condition.
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Better Textile Dryers
Manufactured by GRINNELL COMPANY, Inc.
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Wanted
Position as overseer spinning, spooling, warping or twisting and winding. Age 35, married. Best of reference; have good record. Will change on ten days' notice. Now overseer but wish to change for wife's health. Will call and look position over at my expense. Address Post Office Box No. 305, Lincolnton, N. C.

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15,448,230 Bales of Cotton Ginned

Washington, D. C.—Cotton ginned prior to January 16, amounted to 15,488,230 bales, exclusive of linters and including 336,446 round bales counted as half bales, compared with 13,306,813 bales, including 307,351 round bales to that date a year ago, the census bureau today announced. Ginnings by States:

Alabama	1,349,282
Arizona	100,676
Arkansas	1,473,783
Calfornia	98,039
Florida	40,147
Georgia	1,187,215
Louisiana	891,655
Mississippi	1,794,072
Missouri	268,739
New Mexico	60,703
North Carolina	1,118,029
Oklahoma	1,625,934
South Carolina	918,855
Tennessee	492,180
Texas	3,998,105
Virginia	51,317
All other States	19,540

Cotton Mills in Alsace on Full Time.

Alsatian cotton mills continue to operate on full time and have sufficient forward orders to maintain this condition for from three to six months, states a report to the Department of Commerce from Consul C. W. Davis, Strasbourg. Although the present situation in the Alsatian textile industry is favorable, it is thought that a commercial accord with Germany, either granting an exemption from duties or a preferential rate on textiles, will be necessary to a continuation of the industry's prosperity. Since January 10, 1925, when the privilege of free entry at Alsatian products into Germany expired, German buyers have continued to purchase from local manufacturers despite the high import duty. Purchases of grey sheetings have been particularly important in quantity because the extremely high prices maintained by German dealers permitted the Alsatian cotton industry to compete successfully notwithstanding the duty. The exportation of other textiles, including wool cloth, however, has greatly diminished. The entire German demand for Alsatian textiles has declined considerably since October 1, 1925, when the increased Germa nduties became effective.

Indian Firm Desires American Market for Wool.

An Indian exporting firm desires an American market for wool, according to a report to the Department of Commerce from Assistant Trade Commissioner D. C. Bliss, Bombay. Quotations will be made c.i.f. the port of import.

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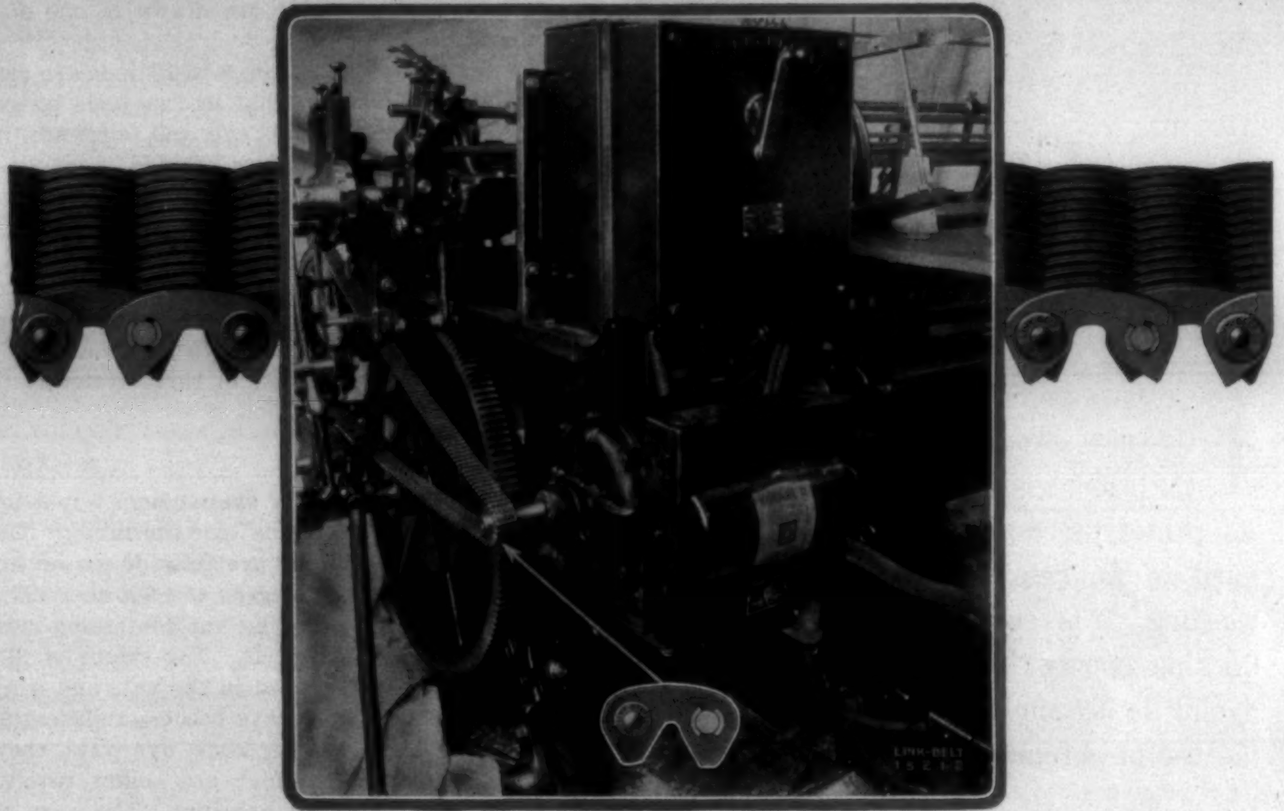

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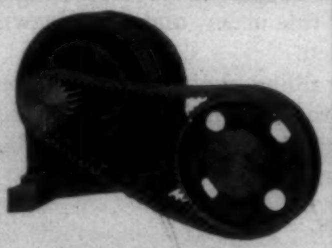

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ALFRED HOFMANN CO., INC., use Link-Belt Silent Chain Drives on their Full Fashioned Hosiery Machines, because (to quote them)

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Link-Belt Silent Chains save power, increase production, produce finished materials of better quality, because a positive velocity ratio is maintained at all times. They operate on short centers, saving valuable floor space, and are not affected by atmospheric conditions.

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A NEW FAST BLACK
FOR WOOL AND SILK

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NATIONAL DYES

NATIONAL N DYES

Cotton Mill Processes and Calculations

(Continued from Page 21)

used, two ends are usually drawn through one dent of reed. Sometimes three or more are drawn in one dent to produce certain effects.

To make the selvage, from 6 to 10 ends are drawn in double at each edge of warp. That is, two ends instead of one are drawn through one harness eye, and four ends, instead of two are drawn through each dent of reed.

Colored Work.

231. The field of weaving colored and fancy goods is well nigh infinite. The present discussion will deal only with the outlines of the preparation of yarn for weaving ordinary plaids and ginghams commonly made in the South.

The dyeing is done in one of three systems: "short chain," "long chain" or "raw stock."

SHORT CHAIN SYSTEM.

232. Yarn intended for this system is put up in "chains" for the warp and in "skeins" for the filling. The methods of making chains and skeins are fully discussed in chapter XV. The short chains are in lengths of 1,000 to 1,500 yards. These are passed through a boiling vat containing clear hot water, and then through a dye vat. The skeins of filling yarn are strung on sticks and dipped in the vats and worked over and over by hand until they have become sufficiently dyed.

When the warp chains leave dye vats they are passed around "drying cans," which are hollow revolving cylinders filled with steam at a low pressure. The warp is then put on slasher beams, each color on its own beam. When the yarn has passed over the slasher cylinders, the various colors are laid in the front reed according to the pattern or order in which they are to appear in the cloth. They are wound on the loom beam in this order, and are "drawn in" according to the design intended.

233. The dyed filling skeins are dried, generally, by hanging in a hot air room. They are then taken to the quilling machine, which winds the yarn on filling bobbins or "quills" ready for the loom.

LONG CHAIN SYSTEM.

234. Yarn intended for this system is generally put up in what is known as "balls," but what, in reality, is not a ball in the ordinary sense. The ball warp is made by winding on a wooden cylinder a number of warp ends drawn together as one strand. This strand is traversed back and forth along the cylinder, crossing and recrossing to prevent tangling. The ball warp may be made by a balling attachment to the beam warper or to the Denn warper.

The Denn warper is described in Chapter XV. The ball warp may consist of any desired number of ends. If less than 500 to 600 ends are required, it may be made on the beam warper. If more ends are required, it is made on the Denn warper. Long chains are about 10,000 yards long. They are frequently made 10,080 yards, to allow for shrinkage, waste, etc., thus assuring a net length of 10,000 yards.

235. Both warps and filling yarn may be put up in long chains. Long chains are boiled, dyed, dried and beamed the same as short chains. The chains intended for warp are beamed and slashed the same as short chains. That intended for filling is taken to a "quiller" and wound on "quills" or filling bobbins ready for the loom. This quiller is adapted for use with this system, and is more economical than the machine used to quill from skeins. This machine could also be used

in the short chain system, and quill yarn from short chains, instead of from skeins. But the machine would require threading up so much oftener, on account of the short lengths, that there would be no saving over the skein quilling.

Raw Stock Dyeing.

236. In this system, the lint cotton is put into a large dyeing machine. This machine consists of a revolving cylindrical cage, hanging in a dye vat in such a manner that when the cylinder revolves, the cotton in the cage is carried down into the dyestuff. When sufficiently saturated, the cotton is taken out, put into a centrifugal machine to drive out the water, and then into a dry room, arranged to receive a blast of air for drying.

There is considerable trouble experienced in drying the cotton in such a manner as to leave it in the best workable condition. It is very easy to dry it too much. Hot air is generally used, but cold air seems to give better results, though requiring a longer time.

The dyeing of raw stock gives good opportunity to mix colors, and when the yarn is spun it may be prepared for the market, or for weaving in exactly the same manner as undyed yarn. Thus the whole process of dyeing and preparation for weaving becomes considerably cheaper.

On account of the difficulties in working dyed cotton, it is found better to work this cotton with shorter drafts throughout the mill than when working natural cotton.

237. It is claimed that cloth woven from raw stock has not the same brilliancy of color as that woven from dyed yarn. In order to compromise this condition, mills are sometimes designed to dye warp in the yarn, and to dye raw stock for spinning filling yarns. This saves the process of quilling, and at the same time gives to the warp whatever advantage in brilliancy may accrue from yarn dyeing.

CHAPTER XI.

Weaving

238. Cloth consists of warp and filling. Warp is yarn running lengthwise the cloth. Filling is yarn running crosswise. Weaving consists in entwining warp and filling in various ways to produce various designs of cloth.

The essential operation of weaving consists in "shedding," "picking," "beating up," "letting off" and "taking up."

239. Shedding is the separation of the warp threads into two parts, to admit the filling threads. The two parts may be equal or unequal, according to the design of cloth. The separation of warp threads into sheds is effected by the harness. It has been shown (230) how the warp is "drawn in" for the purpose of distributing the threads, so that the pulling up of one or another harness raises a predetermined number of threads each time.

240. Picking is the passing of the filling through warp shed. Filling comes from the spinning frame on a bobbin, sometimes called a quill, shown at B, Fig. 35. Bobbin is put into a shuttle. This shuttle, with the bobbin in it, is thrown through the shed, the filling paying out as it passes.

241. Beating up is the action of the reed in beating the filling thread back against the woven part of cloth at each pick.

242. Letting off is the gradual unwinding of the beam of yarn to present more and more warp to the action of the weaving process.

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Watch it walk away with the work

Try out the Graton & Knight Leather Belt that's standardized for spinning frames.

Don't baby it—don't favor it—give it the gaff in every way you can. Watch it walk away with the work. You'll find this Graton & Knight Belt is steady-pulling, flexible, non-slipping. It keeps the frame in constant operation—produces an evener, more uniform thread. It's a belt that will reduce the overhead in your spinning room, increase the production and cut your belting costs.

Three hundred thousand packer hides of finest quality are processed in The Graton & Knight Belt Leather Tanneries each year. This stock, plus controlled, standardized production, makes our prices, quality for quality, 5 to 10 per cent lower than the field.

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that many mills have found the use of warning cards unnecessary.

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Ask your Supply Man

Wyandotte Detergent

The J. B. Ford Co., Sole Mnfrs.
Wyandotte, Mich.

243. Taking up is the rolling up of the woven cloth at a definite rate, so that a definite number of filling picks may be inserted per inch of cloth.

244. The foregoing operations are done on the loom. The power loom at present in use is similar in all its movements to the primitive hand looms.

Plain Loom.—Fig. 49.—Lettering.

A	Yarn Beam.
B	—Whip Roll.
C	Lease Rod Strap.
D	Rear Lease Rod.
E	Front Lease Rod.
F	Rear Harness.
G	Front Harness.
H	Reed Cap.
J	Shuttle Guard.
K	Reed.
L	Temple.
M	Breast Beam.
N	Breast Strip.
P	Sand Roll.
Q	Cloth Roll.
R	Heel of Temple.
S	Leather on Lay.
a	Crank Shaft.
b	Gear on Crank Shaft.
d	Connecting Rod.
e	Lay (sometimes called "Lathe," and Slay.")
f	Sword.
g	Sword Rock Shaft.
h	Gear on Cam Shaft.
j	Harness Cam.
k	Cam Shaft.
l	Front Harness Treadle.
m	Rear Harness Treadle.
n	Jack Stick.
p	Jack Hook.
q	Jack Strap.
s	Harness Roll.

Plain Loom.—Process.

245. The warp on the beam, with harness and reed attached, is put in place at the back of loom. Beam is unwound a few turns by hand to allow harness and reeds to go into their proper places.

Fig. 49 shows a loom with two harnesses. One harness is hung by leather straps to the front of harness roll, and the other to the back; so that when roll turns, the straps of one harness unwind, while those of the other wind up.

Reed cap H is raised to admit reed. Reed is put in position on the lay, the cap is replaced and fastened down.

Warp is pulled further through the reeds and harness and tied to a short piece of cloth. This cloth is passed around sand roll and wound on cut roll.

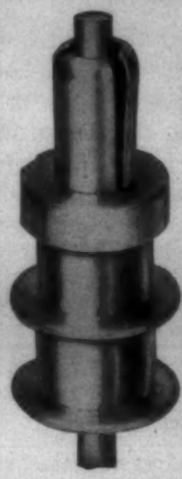
Take up motion is operated by hand to wind the cloth tight and thus draw warp taut through the loom.

Temples are put in place on breast beam, so that cloth, when woven, will pass through them and be held at its proper width.

Jack sticks are hooked on the under side of harness and strapped to the treadles. Front harness is strapped to left hand treadle and rear harness to right hand treadle.

Treadles rest on a rod at back of loom, forming a pivot.

Look Over Your Spindles Now And Be Prepared



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Cams on cam shaft alternately raise and lower each treadle, thus alternately raising and lowering harnesses and making the shedding motion.

When warp is being put on the loom it is turned by hand to produce the sheds, so that lease-rods may be inserted. The round rear lease rod D is first inserted when front harness is up. It is loosely held in place by a leather strap at each end.

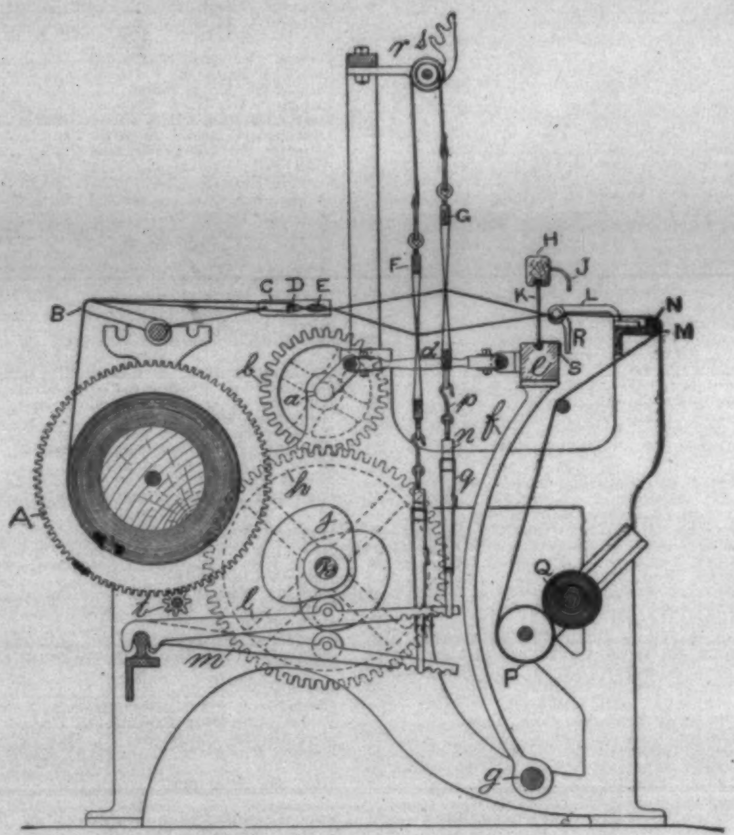

Fig. 49. Plain Loom.—Section.

Loom is turned to make another shed with front harness down, and the flat lease rod E is inserted and fastened in the same straps.

Picker cams are adjusted so they suddenly jerk first one picker stick and then the other, at exactly the right time to propel shuttle through warp shed.

Lease rods are put in the warp for the purpose of keeping the threads better separated, and for facilitating the finding and picing up of broken ends and keeping them in their proper places.

246. An ordinary 40-inch sheeting loom should run about 160 to 170 revolutions per minute. They may be easily run 200, and good weavers frequently run them 180. But the average opinion of good weavers seems to be that the best productiton is obtained on a 40-inch loom at about 165. Too much speed breaks too many threads, and causes stoppages. The most economical speed depends on the skill of the weaver, and on the quality of the yarn.

Wider looms run slower and narrower looms faster than the above figures.

247. A loom is so geared that there is a stroke of one picker stick for each revolution of driving shaft. Hence the speed of loom is frequently referred to as so many "picks" per minute. Each pick puts one filling thread in the cloth.

Fig. 50 shows the gearing and general arrangement of cams, etc., on one style of plain loom.

(Continued next Week)

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WRITE FOR SAMPLES
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Analysis of Dry Goods Situation

(Continued from Page 7)

sell himself on the economy and the practical value of our service or goods? Should we not assume the responsibility of demonstrating the worth of our goods or our service? If we fail even to attempt to demonstrate our worth, should we blame the customer for not believing in it?

Hand-to-Mouth Buying Can Be Made Sound.

The first fact we must face is this: The retailer is forced to make more efficient use of his capital if he is to offset increased overhead, meet competition and show a good profit. This means he must organize for turnover. Instead of lamenting hand-to-mouth buying, let us recognize it as a sound tendency, if properly directed. Hand-to-mouth buying is a splendid antidote for speculation, and speculation, with its resulting price instability, each of us has good reason to avoid.

The retailer today must buy what his customers want or what he can educate them to want. It is manifest that the retailer cannot send a telegram today and receive a shipment tomorrow of just what he wants unless the three factors in the distribution of dry goods, viz., the producer, wholesaler and retailer, have studied consumer trends and are prepared to meet them. Only in this way can we catch demand at the flood instead of at the ebb.

We must all look further ahead in order to appraise the various factors which indicate trends. None of us has tried to get down to bed-rock facts. The retailer waits for demand to present itself. The wholesaler waits for the retailer. The mill waits for the wholesaler. The retailer and many times the wholesaler have said: "When I get the demand I will put it in." We must anticipate demand. We should, in so far as we can, help to formulate consumer desires. In this effort we may safely figure upon the consumer constantly wanting better qualities and more up-to-date types of products.

Let us consider the chief ways in which the wholesaler can be of practical service to the retailer:

1. By giving efficient service from open stock he enables the retailer to operate with a reduced inventory, thus increasing turnover.

2. Through the extra capital thus made available the retailer can stock additional items with profit to himself, greater service and satisfaction to the consumer.

3. A "want slip" is about as obnoxious to a good retailer as a mark-down. Efficient service from the wholesaler is the best possible protection against "want slips," mark-downs and excessive interest charges on heavy inventories.

4. The progressive wholesaler, working closely with retailer and producer in analyzing consumer tendencies, can keep the retailer supplied with merchandise or merchandise service ideas developed to meet these tendencies.

What Price Labor?

If the purchasing power of the consumer's dollar has declined to about 60 per cent of its pre-war value, the employer's dollar in paying wages has shrunk still more, because of the higher wages paid. A dollar in October, 1925, would buy the average only 43.7 per cent the amount of labor of what it would have commanded in 1914, according to a study by the National Industrial Conference Board, 247 Park Avenue, New York. In other words, the Board points out, while the employee's dollar spent for general living expenses, has decreased only about 40 per cent since 1914, the employer's dollar spent for wages has declined 56.3 per cent and is worth considerably less than half of what it was in pre-war days,

Average hourly earnings in industry last October were 129 per cent greater than in 1914, and have shown greater stability for the past two years than at any time since the beginning of the war, according to the Board's analysis. The purchasing value of the employer's dollar in the labor market reached its lowest point in 1920, during the inflation period, when it dropped to 40.7 percent of its 1914 value; it rallied to 51.5 percent or a little more than half of its pre-war value in 1922, but has hovered at 44 per cent or less of its 1914 value ever since 1923.

These percentages, however, the study emphasizes, cover average amount of labor in terms of man-hours, and do not take into account kind and quality of work or changes in labor effiicency.

The relative purchasing power of the employer's dollar in the various industries, on the same basis, in October 1925 as compared with 1914 value, was as follows:

In the paint and varnish industry, 53.8 per cent of the 1914 value; in the machine and tool industry, 47.4 per cent; heavy equipment, 46.3 percent; electrical manufacturing, 45.5 per cent; hardware, 46.3 per cent; in the printing of newspapers and periodicals, 44.6 per cent; book and job printing, 42.9 per cent; in the boot and shoe industry, 44.6 per cent; agricultural implement industry, 44.6 per cent; in the automobile industry, 44.2 per cent; in the paper and pulp industry, 43.9 per cent; in furniture, 42.7 per cent; foundries, 42.6 per cent; in leather tanning, 42.4 percent; in chemical industry, 42 per cent; in the iron and steel industry, 41.5 per cent; in the Northern coton mills, 41.2 per cent in the Southern, 37.7 per cent; in the silk industry, 41 per cent; in the rubber industry, 38 per cent; wool, 37.8 and in the paper products industry, 36.8 per cent.

Overseers Give Oyster Supper.

Easley, S. C.—The section men and second hands of the Alice Mills here were entertained delightfully at an oyster supper given by the superintendent and overseers. The banquet was beautifully served by eight young women of the village.

An inspiring address was made by A. B. Adkins, who spoke on "Ambition." Two short talks were made by Jerome Conley and G. I. Austin.

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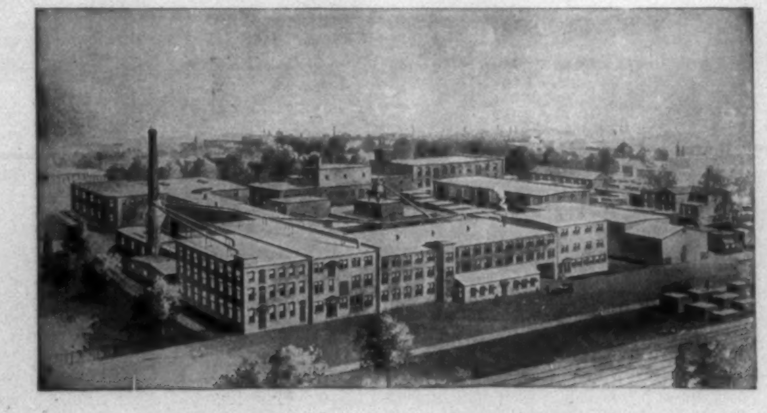

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Sales Convention National Oil Products and Metasap Chemical Company at Pinehurst, N. C.

The annual sales convention of the National Oil Products Company, and the Metasap Chemical Company, held recently at Pinehurst, N. C., brought together the officials and sales forces of the two organizations in a most enjoyable and instructive meeting.

The program was devoted to practical talks on salesmanship and distribution and developed a great many of interesting ideas. The speakers included many of the sales representatives as well as the officials of the companies.

This was the first sales convention of the National Oil Products Company to be held in the South and those present were delighted with the Pinehurst meeting and declared it one of the best the organization has ever held.

The National Oil Products Company is represented in the South by C. I. Post, of Charlotte, district manager for this territory, who is rapidly increasing the business of the company with the mills in this section, their oils and chemicals being widely used in the South.

Curtailment Helps Yarn Situation

Discussing the yarn market situation, the weekly bulletin of the Southern Yarn Spinners Association emphasizes the fact that the yarn mills are in a stronger position now than they have been in some time and shows that this condition has been brought about by keeping yarn supplies within the limits of demand. The bulletin says:

"The yarn market remains quiet although there is a considerable amount of buying in small quantities for prompt shipment. Buyers have not yet come into the market for future deliveries of material quantities. Spinners are reported to be well supplied with orders and are not striving for orders at the presenttime. Prices remain firm with spinners prices at a slight advance over last week. The demand has strengthened for carded weaving yarns with a fair demand for hosiery yarns.

"A comparison of cotton prices plus waste as compared with yarn prices less commission, discounts and freight for the year 1925, shows that on 20's two ply warps in the month of January the manufacturing margin was 11·99 cents, decreasing to 6.74 cents in June and finally reaching the high point of 14.98 in October. On 30's single hosiery cones, the manufacturing margin was 15 cents in January, decreasing to 7.75 in June and finally increasing to 15.05 n October. On 12's single skeins, the manufacturing margin was 8.53 in January, decreasing to 3,97 in June and finally increasing to 10.37 in October.

"In January, 1925, the manufacturing margin represented about replacement values. The decrease beginning in February finally reached its low point in June with so small a manufacturing margn as to show materal loss on all sales accepted at prevailing prices. During the summer months and the early fall months, while the price of cotton and yarns was below the level in January, the manufacturing margin showed a gradual increase, finally reaching a figure considerably better than replacement value in October. For the month of December prices of both cotton and yarns reached the low point for the year but in spite of that the manufacturing margin represented almost replacement value. Operations were materially curtailed during the summer months for lack of business and in the early fall months and until almost the end of the year by the shortage of power occasioned by the drought. The fact that although both the price of cotton and yarns were materially lower in October than at the beginning of the year and that the manufacturing margin should have been greater in Octobber than during the preceding portion of the year, indicates beyond question the material benefit that the spinners experienced due to the enforced curtailment.

The market at the present time is potentially strong and if operations are regulated in accordance with demand, profitable business will result."

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To Make Rolls for Long Draft Spinning

Greenville, S. C.—A plant and office for manufacture and distribution of special spinning machine rolls necessary to installation of the Casa Blancas long draft spinning system in cotton mills will be established here in the near future by the United States Casa Blancas System company, now in process of organization.

This became known following the return of A. H. Cottingham, general manager of the Victor-Monaghan Cotton Mills, from Spain, England, Italy and France, where he has been making a study of the Casa Blancas system, invented by a Spaniard, and widely used in European mills.

Several months ago Senor Blancas, the originator of the system, visited Greenville, and made a study of American cotton mills, advising with officials of the Applache Mills, the Monaghan Mill and the Piedmont Manufacturing Company. Shortly afterward, Mr. Cottingham decided to go abroad to study the operation of the Spaniard's system.

The favorable report he made upon his return of the economic advantages of the new method had been preceded by communications virtually to the effect. An office of the company which will distribute the rolls and install the system in American mills has been open in Boston for several weeks, and now has on display spinning frames demonstrating the long draft method.

Officers of the new company have not yet been elected, as organization is now being perfected. This will be accomplished within the next few weeks, however, it is expected, and an office will be opened here and plans announced for a plant here to to manufacture the special machinery required for use of the system in sufficient quanity to supply American mills.

The Casa Blancas long draft spinning system, Mr. Cottingham explained, eliminates two processes from the carding of cotton before actual spinning is begun, thereby greatly reducing the cost of manufacturing yarn. It also produces a more evenly spun and a stronger yarn, it was stated.

One or more local cotton mill men are connected with the embryonic syndicate which will manufacture and market the special rolls and install the new system.

Heat Retaining Value of Fabrics.

The Bureau of Standards has recently completed additional tests which tend to prove the theory developed in previous tests that it is the amount of air confined in the nap of the fabric rather than the material the fabric is made from that controls the heat retaining value of fabrics. A bed sheet used over a blanket will tend to confine more air in the blanket and will increase the warmth about 10 per cent. Further details can be obtained by writing direct to the Bureau of Standards.

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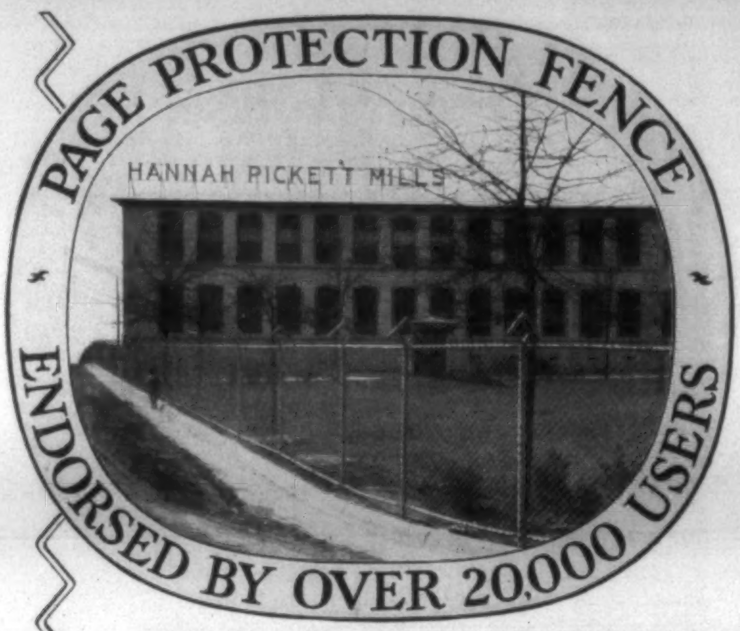

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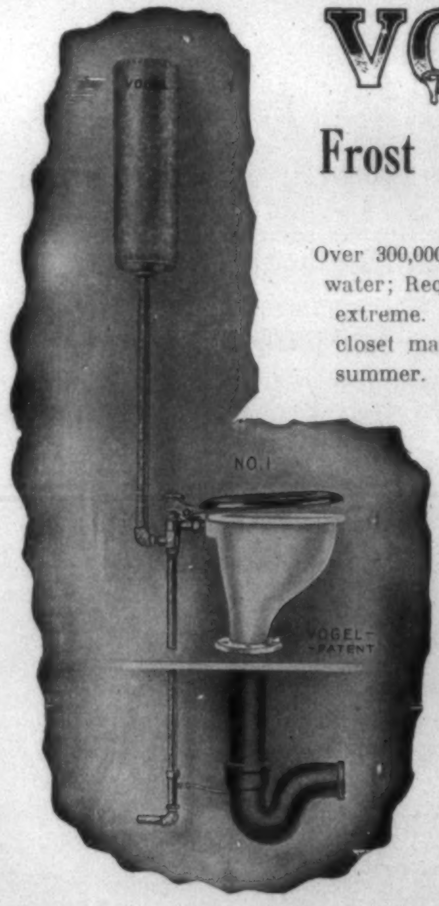

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Malleable seat castings will not break.

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Sulfur Dyes on Mercerized Thread

(Continued from Page 10)

is the opportunity for the penetration to be accomplished. Another point in this regard is to enter the yarn in a not too overheated dyebath; the indicated temperature of 120° F. is found to be most satisfactory.

Sewing thread, unlike many other kinds of thread is frequently subjected to a sort of polishing after it has been dyed and dried. While this polishing process is not a part of the dryer's duties, it may be of in-
TWO—Sulfur dyes on Mercerized t
terest to mention, briefly, the ingredients and process. The polishing mixture usually consists of a mixture of carnuba wax (Japan wax) saponified with sal soda in a water solution—fifteen pounds of the wax and five pounds of sal soda in five gallons of water. The soda is dissolved, then the wax in small pieces is slowly added during boiling. When the wax has combined, some well boiled starch paste is added to bring the whole to 25 gallons. The degree of stiffness the finished thread should possess determines the amount of starch to be used, and this can only be ascertained by making a few experiments.—From Dyestuffs, published by the National Aniline and Cehmical Company.

Disappointing Year in English Cotton Industry

(Continued from Page 14)

It is not unusual for the prospects regarding any trade during a new year to be viewed optimistically. The cotton trade, however, has experienced so many disappointments that the writer puts down his views regarding future trade very gradually. It can be said, however, that the prospects are promising. There is a bountiful supply of American cotton at prices which are now on a parity with other commodities. The trade position in India is better than for four years back. Finance in European countries, particularly Germany, is now more stable, and consequently the products of the Far Eastern countres can be purchased on a freer scale, which, in enriching the natives of India and other countries, enables them to purchase larger quantities of piece goods for clothing, etc. here is plenty of evidence for believing that stocks of manufactured cotton goods in the overseas outlet are smail; and when it is realized that there is no likelihood of cheaper prices prevailng, it is probable that buyers throughout the world will operate on a freer scale. It might be said that a spirit of subdued optimism prevails regarding future developments in the Lancashire cotton industry. If a larger business cannot be done with prices on present levels, then the reason for the present trade depression is far deeper than any of the causes yet propounded.

Binder Twine Market in Spain.

Active and potential market is afforded for the sale of American sisal binder twine among the farmers in the Spanish provinces of Seville, Cordoba, Huelva and Extremadura, reports Consul R. D. Murphy, Seville to the Department of Commerce. Although there are some firms in Barcelona who manufacture sisal binding twine, the American product is preferred. The standard generally used is 50 flat, one strand, in 50-pound bales containing 10 balls each. Lots of 600 bales and over are ordered by some importers for distribution.

Red Springs Cotton Mill Statement

Red Springs, N. C.—In view of the fact that the directors of the Red Springs Cotton Mill believe that a msapprehension has been created by reason of criticism of their management by minority stocpholders, a representative has authorized a statement in regard to the recent sale and the situation leading up to it. It will be remembered that the directors recently bid $150,000 at auction for the mill property, presumably to protect their endorsement upon outstanding paper of the company.

The statement calls attention to the fact that the cotton mill industry has been suffering a period of depression for several years, and that the Red Springs Mill, not having had any surplus or working capital, was unable to secure funds when the depresson came, except on endorsement of its directors. The directors say they object to the intimation by the minority stockholders that they have acted in any but a regular manner, and declare they feel an injustice has been done them by reason of the criticisms published in connection with the recording of the sale of the mill.

The directors assert that it is difficult for them to see, in the face of their proposition to the stockholders, upon what the allegation of bad faith against them is based. They state they have offered, and continue to offer, to treat with each and every stockholder upon the same basis on which they are being treated themselves. They claim there is absolutely nothing in the charge that the directors wished to chill the bidding in order to get the property for themselves for nothing, and in substantiation of this assertion they point to the fact that the sale was advertised in five papers. The directors assert that the committee of stockholders was invited and urged to cooperate with them in giving the widest publicity to the sale.

The directors point to the fact that the sale of property to them for $150,000 would have to be confirmed by the Federal Court, and, if they get the property at this figure, it will cost them approximately $300,000, according to their calculations, as they will have to pay certain liens on the outstanding balance of the endorsed paper. The directors assert that they not only do not want the property but they are willing at any time to make a free gift of their stock to any one who will assume the liability on the endorsed paper. One director, holding the largest amount of the stock, is understood to have offered to give it to any one relieving him of further liability on the endorsement, and in addition has offered to give any such person $10,000 in cash along with the stock.

Expect Greater Use of Rayon Waste

The present year is likely to witness the most intensive effort yet made to draw cotton mills into closer relationship with rayon. The most important development in this respect will be in the greater use by cotton mills of rayon waste, according to several factors, who are bending their efforts to further the tendency.

One of the leading importers of rayon waste in New York declares that many cotton mills have found it more expedient to use waste than the regular rayon yarn. Waste, he points out, is spun just like cotton is spun into yarn, whereas use of the twisted rayon filaments compels the installation of much new and expensive machinery. In addition to all this, excellent waste of the basic type known as "open bleached" is available at about one-quarter of the cost of A quality, 150-denier rayon.

The broadening use of artificial silk waste in this country, it is felt in some centers where all rayon causes and effects are studied rather closely, will eventually lead a steadier supply of rayon cut up in the form of fiber, in tops, ready for spinning. This was first done by the Germans, who used it as a cotton substitute during the war. From these tops, it is said, it is possible to obtain an excellent mixture yarn. Some curious rainbow effects in yarn of this character have been shown by New York importers, who have brought in samples from Czecho-Slovakia.

Spinning Active for Past Month

Cotton spinning was more active during December than in any month since April, last year, the census bureau's monthly report indicated.

Active spindle hours for December numbered 8,271,576,487 or an average of 218 per spindle in place, compared with 7,833,792,613 or an average of 207 per spindle in place, for November last year and 7,816,590,215, or an average of 206, for December a year ago.

Spinning spindles in place December 31 totalled 37,885,488 of which 33,000,874 were operated at sometime during the month, compared with 37,918,358 and 32,892,324 in November, last year, and 37,885,538 and 32,661,949 in December a year ago. The average number of spindles operated during December totalled 37,683,720, or at 99.5 percent capacity on a single shift basis, compared with 36,417,612, or at 96.0 per cent capacity in November last year.

90-Color Process in New Type Knitting Machine

Philadelphia, Pa.—Continued use of colors, and more of them in juvenile hosiery, is said to be indicated in the installation of a type of knitting machine by which it is possible to produce 90 colors in a single process. That is given as the maximum for 3¼-inch 120 needle machine, if supplied with the 90-yarn fingers for which it would be possible to make provision. The machine, christened the Muti Design, an invention of Walter Larkin, is built by the Fidelity Machine Company, 3908-3918 Frankford avenue, of which H. W. Anderson is the president, and who stated that deliveries are being made to mills.

The new machine is chain-controlled and produces the variety of colors without the use of the card. It is being operated on the productions of fancy tops for misses' and boys' hosiery, and it is expected its application to golf stockings in a general way and to other lines of hosiery as well, is but a matter of time. It never has been demonstrated to the public, but is in operation at the company's factory. Obviously, as there is practically no limitation of the color range, it is possible to knit various yarns—silk, rayon, cotton and wool, for example—into any number of designs.

Butterworth Discontinues Greenville Plant

Greenville, S. C.—Because the main plant of the H. W. Butterworth & Sons, manufacturers of mill machinery supplies, is increasing production, the branch plant here will be discontinued, but offices will be retained, it was learned through J. E. Butterworth, in charge of the local branch.

Mr. Butterworth pointed out that the decision to discontinue the manufacturing end of the business in this city was brought about by an attempt of the company to cut down the overhead expense.

The company has found that having offices in the South was very profitable, but there is still a question as to the value of manufacturing in branch Southern plants on a smaller scale. Hence the decision not to renew the lease of the bulidding of the plant here.

Mr. Butterworth will remain in the South for some time at least. The Butterworth company manufactures machinery for bleaching, finishing, and mercerizing. The company is more than 100 years old, having been established in 1820. It is said to be the oldest concern of its kind in the United States.

Silk Production in Algeria.

Sericulure in Algeria is still in an experimental stage, but the 1925 season, which is now over, has been a successful one and indicates a promising future for the ndustry, Vice Consul D. Williamson, reports to the Department of Commerce. The production of silk in 1925 was 17,600 pounds of fresh cocoons, compared with 5.000 pounds in 1924. Also the number of silk growers has increased very considerably, from 175 in 1924 to 227 in 1925. The weight of silkworm eggs incubated in 1925 was 15.8 pounds as against 6.6 pounds in 1924. The net price received by the silk growers for fresh cocoons was 20 francs per kilo in 1925, an increase of 2 franc per kilo over the 1924 price. In nearly every branch of the industry, the silk raiser has the help of the government.

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COMMISSION MERCHANTS
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Sole Selling Agents For
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43 and 45 Worth Street, New York
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Wellington, Sears & Company
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REEVES BROTHERS, Inc.
55 Leonard Street New York
Print Cloths, Twills, Pajama Checks,
Sheetings, Combed Peeler Yarns

Cotton Goods

New York.—While cotton goods sales did not reach the mark of the previous week, they were fairly active and a substantial amount of business was put through. There was a moderate demand for print cloths and sheetings, the bulk of the business for fairly prompt shipment. Premiums were paid for some construction of print cloths for early delivery. Printers have booked a large business and are expecting a good season.

Buying of finished goods was more general and the purchases covered a wider range of goods. The demand from wholesalers and retailers was steady throughout the week and while most orders were small, they were of sufficient volume to total a very good week's business. The outlook for most lines of finished goods is considered very good, due to the fact that the jobbers are carrying very small stocks and the retail demand is very promising. Colored goods, particularly ginghams showed an increase in sales volume and the trade is expecting further improvement in the gingham situation. In spite of the better business, new prices on ginghams have been established during the past two weeks.

The demand for print and decorated broadcloths, silk filled novelties and similar goods, continued very good. Buyers of fancies and novelties, however, are moving very cautiously and buying in small quantities only, making a rather difficult situation for the mills. Some buyers have stated that they would rather pay higher prices now than to attempt to cover their probable future needs.

Some improvement in export trade has been noted. One important selling house stated that with cotton goods now priced on a basis that should prove attractive in export markets, there should be increased foreign trade this year. The large gray goods exports markets continued quiet but the outlook for improved trade is considered good and the general situation on sheetings and heavy goods for export is expected to be mush better within a short time.

Spots of 80 square print cloths were cleaned lp in several quarters at 12½ cents. There were still some available at the price, with several quoting 12⅝ cents. A few mills ask 12½ cents for later delivery. Quite a few small spot sales of 8.20 yard were reported at 5⅝ cents and 5¾ cents, with the shade cloth trade paying 5⅞ cents. Limited business was noted in 64x60s, 5.35 yard, at 8¾ cents. Buyers could find no spot 60x48s under 7⅞ cents, and very few at the price. February late deliveries were 7¾ cents. Small lots of 72x76s were sold at 11¼ cents; 7.15 yard, 16⅝ cents; 6.40 yard, 7½ cents; 6.60 yard, 7¼ cents and later 7⅛ cents. Of the later construction 40-inch sold at 7⅜ cents.

Activity in sheetings was spread over quite a number of constructions. Individual sales were usually small, running under 50,000 yards. The business involved spots and nearby 49 square 4-yard at 9½ cents; 4.7 yard, 8⅜ cents; 36-inch 5-yard, 7⅞ cents; 6.15 yard at 6⅛ cents and 6¼ cents. Spots and February 40-inch 4.25 yard were practically exhausted at 9 cents. Some late February were said to be available at the same price. A number of saies of 40-inch 5.50-yard were at 7⅞ cents and 5-yard 8¼ cents. Spot 2.85 yard sold at 12¼ cents and 2.50 yard 14 cents.

Sales of osnaburgs, 30-inch. 7-ounce, were at 10¾c. The total of were at 10¾ cents. The total of business in the style totaled several included 37-inch, 3 and 3.25 yard at 12⅛ cents and 13⅛ cents, with goods to be found at even money. Pajama checks were inquired for, and though buyers found March goods available they failed to operate.

There was little change in the tire fabric situation. Prices on leno fabric continued 45 to 46 cents for the 8 and 10 ounce construction. Buyers continued to show interest in a great variety of weights, widths and qualities than was the case a year ago.

market during the week. Quite a lot of small orders were accepted for spot delivery. The greater majority of the latter orders called for less than 1,000 pieces in each instance.

The 25 and 36-inch low counts have been in the most urgent demand, though fair inquiry has been received for sateens and twills. Prices have somewhat strengthened; constructions which are becoming scarce in this market are showing an advance of from ⅛ cents to ¼ cents.

Cotton goods prices were as follows:

Print cloths, 28-in., 64x64s	6½
Print cloths, 28-in., 64x60s	6¼
Print cloths, 27-in., 64x60s	6
Gray goods, 38½-in., 64x64s	9¼
Gray goods, 39-in., 68x72s.	10⅜
Gray Goods, 39-in., 80x80s..	12½
Brown sheetings, 3-yard...	12¾
Brown sheetings, 4-yard...	10¾
Brown sheetings, stand. ..	13¾
Ticking, 8-oz.	22
Denims	17½
Staple ginghams, 27-in......	9
Kid finished cambrics.....	9 a10
Dress ginghams	13½a17½

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The Yarn Market

Philadelphia, Pa.—The market for cotton goods was moderately active during the week. The total business done was somewhat larger, and although made up for the most part of small sales for quick shipment, orders were frequent enough to make a very promising total. Prices held firm throughout the week. Less was heard here of concessions by dealers handling spot yarns. Spinners prices were well maintained and were somewhat higher than general market prices here.

There were some sales of fairly large quantities of carded yarns for future delivery. The demand for weaving yarns has improved considerably and these yarns were in rather good demand wherever they were available for prompt shipment. Several large sales of tinged insulating yarns were also reported during the week. The carpet trades and the manufacturers of webbing were also in the market, most of the purchases calling for nearby delivery.

Combed yarns continued firm with mills sold well in the future. Several reports indicated some that of the combed yarn mills in Gaston county had taken orders for delivery running as far ahead as April and May. Mercerized yarns continued in active demand and prices were generally firm.

Due to the several strong factors in the yarn situation, it is believed that the yarn market will show considerable improvement within a short time. Stocks are low and buyers hunting concessions are having difficulty in finding supplies. At present there is not enough stock available to hurt the market even if sold at lower prices. Mill are comfortably sold and are under no pressing need of business for some weeks to come. Buyers have not covered their needs and the mills should be prompt to feel the influence of a steadier buying movement.

Prices published in this market were as follows, although they are generally somewhat lower than spinners will accept:

Southern Two-Ply Chain Warps.

8s	35 a—
10s	36 a—
12s	37 a—
16s	37½a—
20s	38½a—
24s	41½a—
26s	43 a—
30s	45 a46
40s	55½a56
40s ex.	a60
50s	65½a66

Southern Two-Ply Skeins.

8s	34½a—
10s	35 a—
12s	36 a—
14s	37 a—
16s	37½a—
20s	37½a38
24s	40½a—
26s	42 a42½
30s	44 a—½
36s	51½a—
40s	54 a—
40s ex.	58 a60
50s	64½a65
60s	71½a—
Tinged Carpet ——3 and 4-ply	31½a—
White Carpet ——3 and 4-ply	33½a34

Part Insulated Waste Yarns.

6s, 1-ply	29 a—
8s, 2, 3 and 4-ply	30 a30½
12s, 2-ply	33½a—
16s, 2-ply	35½a—
20s, 2-ply	36½a—
26s, 2-ply	41 a41½
30s, 2-ply	42½a—

Duck Yarns—3, 4 and 5-Ply.

Southern Single Chain Warps

10s	34½a—
12s	35½a—
14s	36½a—
16s	37½a—
20s	38½a—
24s	40½a—
26s	41½a—
30s	43½a—
40s	54½a—

Southern Single Skeins.

6s	33½a—
8s	34 a—
10s	34½a—
12s	35½a—
18s	36½a—
20s	37½a—
22s	38 a—
24s	39½a40
26s	40½a41
28s	42 a—
30s	40½a41
40s	51 a52

Southern Frame Cones

8s	33½a—
10s	34 a—
12s	34½a—
14s	35 a—
16s	35½a—
18s	36½a—
20s	37½a—
22s	38 a—
24s	39½a40
26s	40½a41
28s	42 a—
30s Tying in	40½a41
30s	42 a44
40s	51 a52

Southern Combed Peeler Skeins, Etc.—Two-Ply.

16s	56 a60
20s	58 a62
30s	65 a67
36s	75 a80
40s	80 a85
50s	87½a90
60s	90 a95
70s	1 05a1 10
80s	1 18a1 20

Southern Combed Peeler Cones.

10s	48 a49
12s	49 a50
14s	49½a50½
16s	52½a—
18s	51 a52
20s	52 a—
22s	53 a—
24s	56 a—
26s	56½a—
28s	57 a—
30s	60 a—
32s	62 a—
34s	65 a—
36s	72 a—
38s	74 a—
40s	75 a—
50s	80 a—
60s	90 a95
70s	1 05a—
80s	1 15a—

Eastern Carded Peeler Thread—Twist Skeins—Two-Ply.

20s	50 a—
22s	51 a—
24s	56 a—
30s	59 a—
36s	63 a—
40s	65 a—
45s	70 a—
50s	75 a—

Eastern Carded Cones.

10s	39 a—
12s	40 a—
14s	41 a—
20s	42 a—
22s	45 a—
26s	49 a—
28s	51 a—

Indian Cotton-mill Production

During the 12 months, September, 1924, to August, 1925, Indian cotton mills produced 751,000,000 pounds of yarn and 468,000,000 pounds of cotton goods compared with 638,000,000 of yarn and 430,000,000 of cloth during the preceding cotton year, states a report to the Department of Commerce from Consul General J. G. Lay, Calcutta. During August, 1925, the output of yarn amounted to 64,000,000 pounds and of cloth to 37,000,000 5pounds, as against 61,000,000 and 40,000,000, respectively, in the corresponding month of 1924. In yards, the August, 1925, production amounted to 153,000,000 and imports to 140,365,000.

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Last Longer, Make Stronger Yarn, Run Clear, Preserve the SPINNING RING. The greatest improvement entering the spinning room since the advent of the HIGH SPEED SPINDLE.
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One ounce of prevention is worth a pound of any cure.
THE USE OF
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WHY?
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Account of replacement with different equipment we offer for sale the following at sacrifice prices: 21 Spoolers, 100 spindles each; 20 Warpers with beams; quantity of Spools. Delivery, commencing February, 1926.

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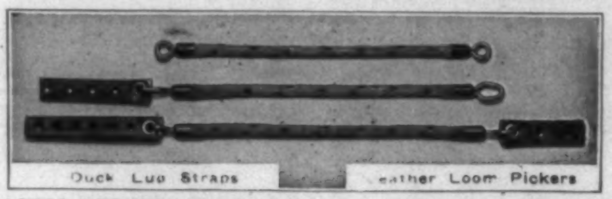

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WANT position in mill office as book keeper, auditor, paymaster or cost accountant. Would take place in superintendent's office. Full graduate from textile school and have considerable mill experience. No. 4734.

WANT position as overseer fancy cloth room or finishing department. Have had 18 years experience in finishing room, including experience on chambrays and ginghams. Good references. No. 4735.

WANT position as overseer of carding or spinning. Reliable man of long experience who can furnish satisfactory references. No. 4736.

WANT position as overseer weaving on sheetings, print cloth, drills, duck, or osnaburgs. Eight years as night overseer and sceond hand in large mill. I. C. S. graduate in warp preparation and plain weaving. Age 39. Married, sober, now employed. Good references. No. 4737.

WANT position as master machanic. Experienced on both steam and electric drive and am hard worker who can run your job right. References. No. 4738.

WANT position as master mechanic or machinist Steam or electric drive, can handle turbines, engines, generators and am first class all around man. No. 4739.

WANT position as superintendent of yarn or cord fabric mill. Age 33, married, have been with large mill for past 8 years, 3 years as assistant superintendent. Good reasons for wanting to change and can give good references. No. 4740.

WANT position as superintendent or overseer carding in large mill. Long practical experience and can give first class references. No. 4741.

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WANT position as overseer carding or spinning, or assistant superintendent of yarn mill. Long experience and can furnish references to show character and ability. No. 4743.

WANT position as overseer carding and spinning or second hand. Have had several years experience. Am I. C. S. graduate. Age 30, references. No. 4744.

WANT position as overseer of carding spinning with good Southern mill. Experience and training qualify me as first class man in every respect. No. 4745.

WANT position as superintendent, carder or spinner. Prefer North or South Carolina. Now employed. First class references. No. 4746.

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WANT position as overseer spinning or would take good second hand's place. Long experience and good references to show character and ability. No. 4755.

WANT position as overseer weaving, 21 years experience in mill, 11 years in weaving. Age 36, married, now employed. Can furnish good references. No. 4756.

WANT position as overseer plain weaing, or would consider place as second hand in large mill. Have had about 20 year's experience, mostly on plain weaving. Good references. No. 4757.

WANT position as carder, spinner or both. Now employed as spinner. Have had 25 years experience in carding and spinning, 10 years as overseer. Good habits and can give good references. No. 5758.

WANT position as carder or spinner in large mill or superintendent of smaller mill. Would like opportunity to submit references showing my record. No. 4759.

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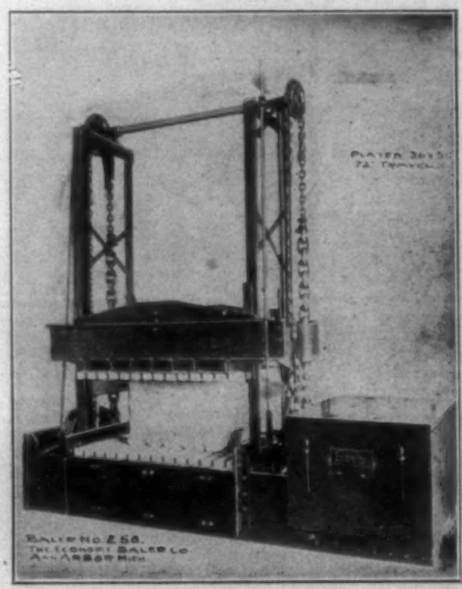

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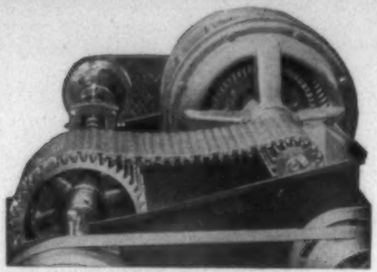

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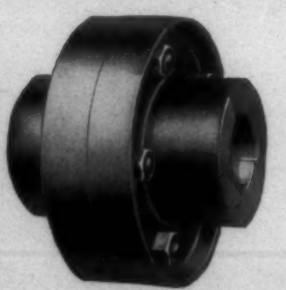

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FIG. 20
Oblong Basket

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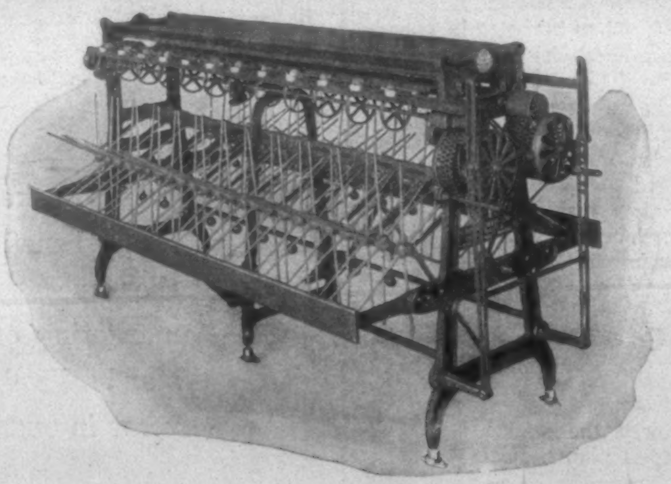

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